

SANYO

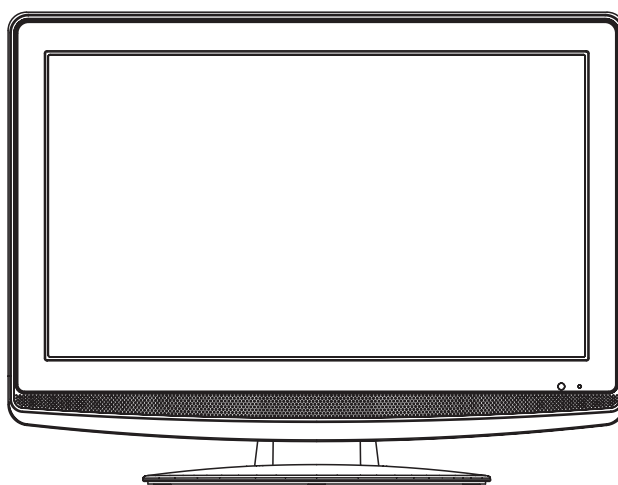
SANYO Factory Code N7SE
Service Reference NO. 609

DP19649

SERVICE MANUAL

18.5" HDTV LCD

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE



**ORIGINAL
MFR'S VERSION C**

SERVICING NOTICES ON CHECKING

1. KEEP THE NOTICES


As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.

Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a  mark, the designated parts must be used.

4. BE CAREFUL WITH THE LCD PANEL

Avoid a shock to the panel while servicing. Take enough care to deal with it.

5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

(INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the external exposure metal **[Note 2]** should be more than 1M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

[Note 1]

If you have not the 500V insulation resistance meter, use a Tester.

[Note 2]

External exposure metal: Antenna terminal
Headphone jack

HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

1. MODEL NUMBER and VERSION LETTER

The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.

2. PART NO. and DESCRIPTION

You can find it in your SERVICE MANUAL.

IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder;
Typically the melting point is 86°F~104°F(30°C~40°C) higher.
Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

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GENERAL SPECIFICATIONS

G-1	TV System	LCD	LCD Size / Visual Size	18.50 inch / 470.1mmV
			LCD Type	Color TFT LCD
			Number of Pixels	1366(H) x 768(V)
			View Range	85/85 degree
			Left/Right Up/Down	80/80 degree
			Bright Dot	$n \leq 3$
G-2	Tuning System		Zero Bright Dot Ratio	70%
		Color System		NTSC
		Speaker		2 Speaker
			Position	Front
			Size	1.0 x 2.7 inch
			Impedance	8 ohm
G-3	Signal		Sound Output	1.5W + 1.5W
			Max	---
			10%(Typical)	
		Broadcasting System	Analog	US System M
			Digital	ATSC(8VSB)/QAM
		Tuner and Receive CH	System	1Tuner
G-4	Power		Destination	US (W/CABLE)
		CH Coverage		2~69, 4A, A-5~A-1, A~I, J~W, W+1~W+94
		Intermediate Frequency	Digital	44.00MHz
			Analog	45.75MHz
			Picture(FP)	41.25MHz
			Sound(FS)	4.50MHz
G-5	Regulation		FP-FS	
		Preset CH		No
		Stereo/Dual TV Sound		US-Stereo
		Tuner Sound Muting		Yes
		Video Signal	Input Level	1 V p-p/75 ohm
			Output Level	--
G-6	Temperature		S/N Ratio (Weighted)	--
			Horizontal Resolution at DVD Mode	--
		RGB Signal	Output Level	--
		Audio Signal	Input Level	-8.0dBm/50k ohm
			Output Level	--
			at DVD	--
G-7	Operating Humidity		at TV	--
			Digital Output Level	0.5 V p-p/75 ohm
			S/N Ratio at DVD (Weighted)	--
			Harmonic Distortion	--
			Frequency Response :	--
			at DVD	--
G-8	Clock and Timer		at Video CD	--
			at SVCD	--
			at CD	--
		Power Source	AC	120V, 60Hz
			DC	--
		Power Consumption	at AC	29W at 120V 60Hz
G-9	Power		at DC	--
			Stand by (at AC)	0.8W at 120V 60Hz
			Energy Star	Yes
			Per Year	-- kWh/Year
		Protector	Power Fuse	Yes
			Safety Circuit	Yes
G-10	Regulation		IC Protector(Micro Fuse)	Yes
			Safety	UL(UL60065_7th)/cUL(CSA E60065_03)
			Radiation	FCC/IC
			Laser	--
		Operation		+5°C ~ +40°C
		Storage		-20°C ~ +60°C
G-11	Temperature		Space Around Unit	10cm (4inch)
				Less than 80% RH
G-12	Operating Humidity	Clock		No
		Sleep Timer	Max Time	120 Min
		On Timer	Program	No
		Off Timer	Program	No
		Game Timer		No
		Wake Up Timer		No
G-13	Clock and Timer	Timer Back-up (at Power Off Mode)	more than	-- Min Sec

GENERAL SPECIFICATIONS

G-9	Remote Control	Unit	RC-PV
		Glow in Dark Remocon	No
		Remocon Format	ORION
		Format	NEC
		Custom Code	86-05 h
		Power Source	3V
		Voltage(D.C)	UM-4 x 2 pcs
		UM size x pcs	28 Keys
		Total Keys	28 Keys
		Keys	Power
		1	Yes
		2	Yes
		3	Yes
		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0	Yes
		-	Yes
		Recall (Quick View)	Yes
		Sleep	Yes
		Mute	Yes
		CH+ / Up	Yes
		CH- / Down	Yes
		VOL+ / Right	Yes
		VOL- / Left	Yes
		Menu	Yes
		Reset	Yes
		Exit	Yes
		Enter	Yes
		Input Select	Yes
		CCD (Closed Caption)	Yes
		Display	Yes
		Zoom (Picture Size)	Yes
		FAV +	No
		FAV -	No
		Audio	Yes
G-10	Features	Auto Shut Off	Yes
		Auto Search	No
		Power On Memory	Yes
		Comb Filter	Yes
			3 -D
		Game Position	No
		Auto Setup(Language/CH Program)	Yes
		Picture Setting(TV)	Yes
		Picture Preference	Yes
		Brightness , Contrast , Color	Yes
		Tint	Yes
		Sharpness	Yes
		Color Temperature	Yes
		DNR	Yes
		Backlight	Yes
		Picture Setting(PC)	Yes
		HOR Position , VER Position	Yes
		Phase, Clock	Yes
		Red, Green, Blue	No
		Auto Adjust	Yes
		Audio	MTS
		Tone Control (Bass/Treble/Balance)	Yes
		Stable Sound	No
		Surround	Yes
		BBE	No
		SRS WOW (SRS 3D/Focus/Tru Bass)	No
		Variable Audio Out	No
		Tuning	CH Program
		Air/Cable	Yes
		ADD/DELETE	Yes
		Label	CH Label
		Video Label	Yes
		Favorite CH	No
		V-Chip	Yes
		Type	USA Type
		RRT Setup	Yes

GENERAL SPECIFICATIONS

	Lock	Hotel Lock	No
		Channel Lock	No
		Video Lock	No
		Panel Lock	No
	Menu Language		English French Spanish
	DBC (Dynamic Backlight Contrast)		No
	Signal Meter (DTV Signal)		Yes
	Closed Caption		Yes
	CC Advanced		Yes
	V-Chip Clear		Yes
	Picture Size		Yes
	HD Zoom		Yes
	Film Mode		Yes
	Aspect		No
	PFC(Power Factor circuit)		No
	Freeze frame		No
	PIP/POP		No
	Direct Input Selection		Yes
	Digital Out	Dolby Digital	Yes
		MPEG	No
		PCM	Yes
		DTS	No
	PC Monitor Input		Yes
	VGA (640x480)		Yes (60,72,75Hz)
	VGA (720x400)		Yes (70Hz)
	WVGA (848x480)		No
	SVGA (800x600)		Yes (56,60,72,75Hz)
	XGA (1024x768)		Yes (60,70,75Hz)
	WXGA (1280x768)		Yes (60Hz)
	WXGA (1280x720)		Yes (60Hz)
	WXGA (1360x768)		Yes (60Hz)
	SXGA (1280x1024)		No
	HDMI Input		Yes
		VGA (640x480)	Yes (60Hz)
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
		1920x1080p	Yes (60Hz)
		CEC (ORION Standard)	No
		Deep Color	No
		xvYCC	No
	DVI to HDMI Input		Yes (60,72,75Hz)
	VGA (720x400)		Yes (70Hz)
	WVGA (848x480)		No
	SVGA (800x600)		Yes (56,60,72,75Hz)
	XGA (1024x768)		Yes (60,70,75Hz)
	WXGA (1280x768)		Yes (60Hz)
	WXGA (1280x720)		Yes (60Hz)
	WXGA (1360x768)		Yes (60Hz)
	SXGA (1280x1024)		No
	Component Input		Yes
	720x480i (4:3)		Yes (60Hz)
	720x480i (16:9)		Yes (60Hz)
	720x480p (4:3)		Yes (60Hz)
	720x480p (16:9)		Yes (60Hz)
	720x576i (4:3)		No
	720x576i (16:9)		No
	720x576p (4:3)		No
	720x576p (16:9)		No
	1280x720p		Yes (60Hz)
	1920x1080i		Yes (60Hz)
	1920x1080p		No
	Wall Mount	Size W x H(mm)	Yes (100 x 100)
		Screw Size	M4 x 10
	Stand	Tilt	No
		Swivel	No

GENERAL SPECIFICATIONS

G-11	Accessories	Owner's Manual	Language	English / Spanish	
			w/Guarantee Card	Yes	
		Remote Control Unit		Yes	
		Rod Antenna		No	
			Poles	--	
			Terminal	--	
		Loop Antenna		No	
			Terminal	--	
		U/V Mixer		No	
		DC Car Cord (Center+)		No	
		Guarantee Card		No	
		Warning Sheet		No	
		Circuit Diagram		No	
		Antenna Change Plug		No	
		Service Facility List		No	
		Important Safeguard		No	
		Dew/AHC Caution Sheet		No	
		Quick Set-up Sheet		No	
		Battery		Yes	
			UM size x pcs	UM-4 x 2 pcs	
			OEM Brand	No	
		AC Adapter		No	
		AC Cord (for AC Adapter)		No	
		AC Cord		Yes	
		AV Cord (2Pin-1Pin)		No	
		Registration Card (NDL Card)		No	
		300 to 75ohm Antenna Adapter		No	
		Stand Screw		Yes(2pcs)	
		Sheet Information (FCC)		No	
		Sheet Information (DTV)		Yes	
		Sheet Information (Return)		Yes	
		Sheet Information (Picture Quality)		Yes	
		Sheet Information (HDMI)		No	
G-12	Interface	Switch	Side	Power (Tact)	Yes
				Channel Up/Menu Up	Yes
				Channel Down/Menu Down	Yes
				Volume Up/Menu >	Yes
				Volume Down/Menu <	Yes
				Menu	Yes
				Play	No
				Eject	No
				Skip+, Search+	No
				Skip-, Search-	No
		Indicator	Rear	Still/Pause	No
				Stop	No
				Main Power SW	No
				Input Select/Enter	Yes
				Main Power SW	No
				Power/Stand-By	Yes (Green / Red)
				Power Wake Up	No
				On Timer	No
		Terminals	Rear	Video Input 1	RCA x 1
				Audio Input 1	RCA x 2(L/MONO, R)
				S - Input 1	Yes
				Video Input 2	No
				Audio Input 2	No
				S - Input 2	No
				Video Output	No
				Audio Output	No
				Component Input 1	RCA x 3
				Analog Audio	RCA x 2(L/MONO, R)
				Component Input 2	No
				Analog Audio	No
				HDMI Input 1	Yes
				Analog Audio	PC Audio Input Alternative
				HDMI Input 2	No
				Analog Audio	No
				Sub Woofer Out	No
				PC Monitor Input	Yes
				Analog Audio	Mini Pin Jack(ϕ 3.5), STEREO
				Digital Audio Output	Coaxial
				DC Jack (Center +)	No
				VHF/UHF Antenna Input	F Type
				Video Input 3	No
				Audio Input 3	No
				S - Input 3	No
				Other Terminal	Headphone
				AC Inlet	Yes

GENERAL SPECIFICATIONS

G-13	Set Size	Approx. W x D x H (mm)	472 x 174 x 362
		w/o Handle, Stand Approx. W x D x H (mm)	472 x 64 x 328
G-14	Weight	Net (Approx.)	4.2kg (9.3lbs)
		Net w/o Handle, Stand (Approx.)	3.9kg (8.8lbs)
		Gross (Approx.)	5.4kg (11.6lbs)
		Gross w/Master Carton (Approx.)	--- kg (--- lbs)
G-15	Carton	Master Carton	No
		Content	--- Sets
		Material	--- / ---
		Dimensions W x D x H(mm)	---
		Description of Origin	---
		Gift Box	Single/Full Color
		Material	Single/Full Color
		W/Color Photo Label	No
		W/Handle	No
		Dimensions W x D x H(mm)	542 x 426 x 147
		Description of Origin	Yes
		Drop Test	1 Corner / 3 Edges / 6 Surfaces
		Height (cm)	80
		Container Stuffing (40' container)	1852 Sets/40' container
G-16	Material	Cabinet	PS 94V0 NON-DECABROM
		Front	PS 94V0 NON-DECABROM
		Rear	PS 94V0 NON-DECABROM
		Jack Panel	--
G-17	Environment	PCB	No
		Non-Halogen Demand	Yes
G-17	Environment	Environmental standard requirement	Green procurement of SANYO
		Pb-free	Phase3(Phase3A)
		Measures for Whisker	Yes

DISASSEMBLY INSTRUCTIONS

1. REMOVAL OF MECHANICAL PARTS AND P.C. BOARDS

CAUTION

Be careful not to remove the FFC cable forcibly, because the FFC cable may be damaged.

1-1: STAND ASS'Y (Refer to Fig. 1-1)

1. Remove the 2 screws (1).
2. Remove the Stand Ass'y in the direction of arrow.

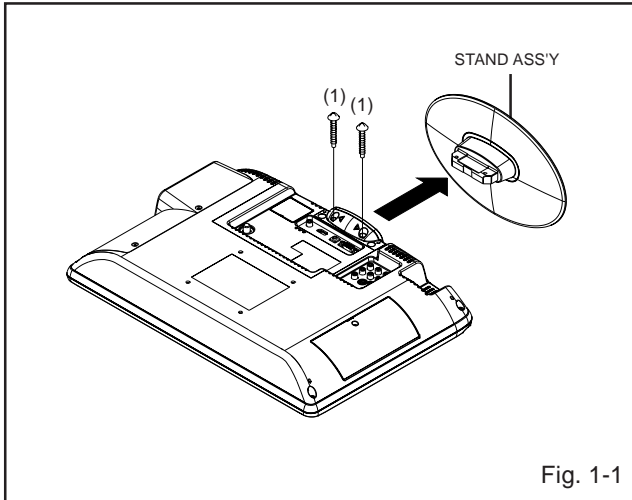


Fig. 1-1

1-2: COVER INVERTER (Refer to Fig. 1-2)

1. Remove the screw (1).
2. Remove the Cover Inverter in the direction of arrow.
3. Disconnect the following connector: **(CP7001 and CP7002)**.
4. Remove the 8 screws (2).

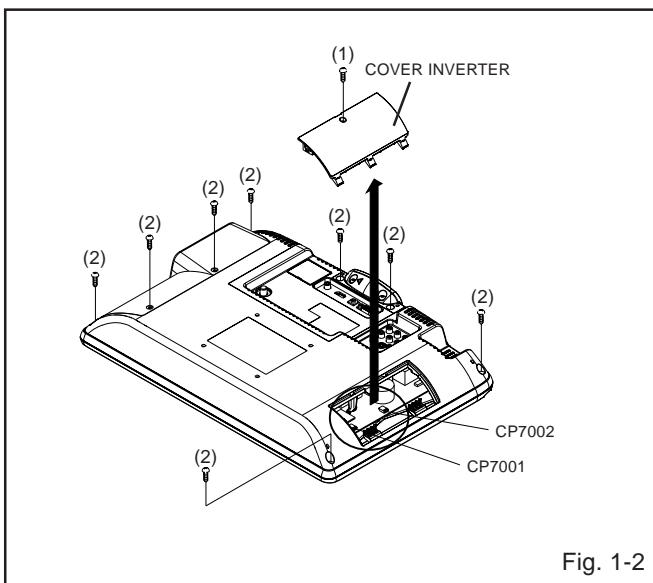


Fig. 1-2

1-3: FRONT CABINET ASS'Y, LCD PANEL (Refer to Fig. 1-3)

1. Turn up set and put the Front Cabinet Ass'y of LCD on the top.
2. Remove the Front Cabinet Ass'y in the direction of arrow (A).
3. Disconnect the following connector: **(CD2801)**.
4. Remove the LCD PANEL in the direction of arrow (B).

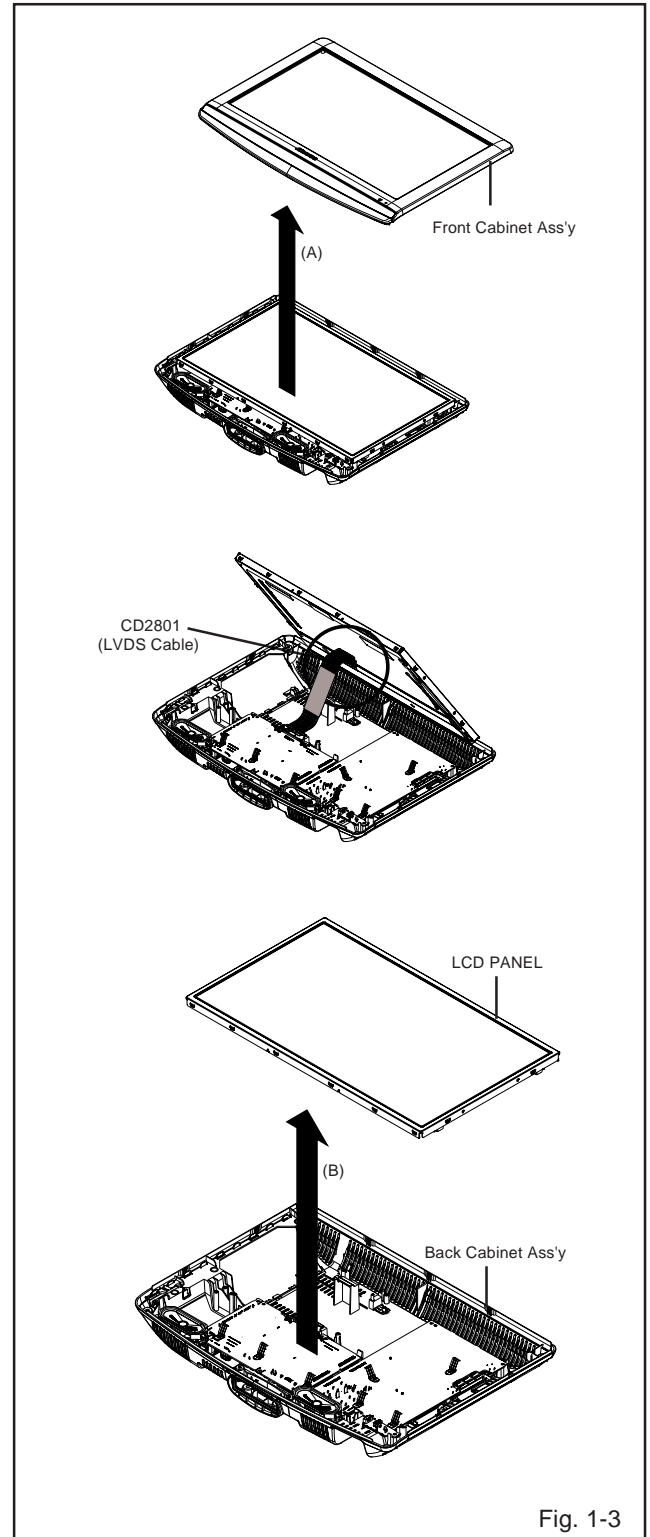
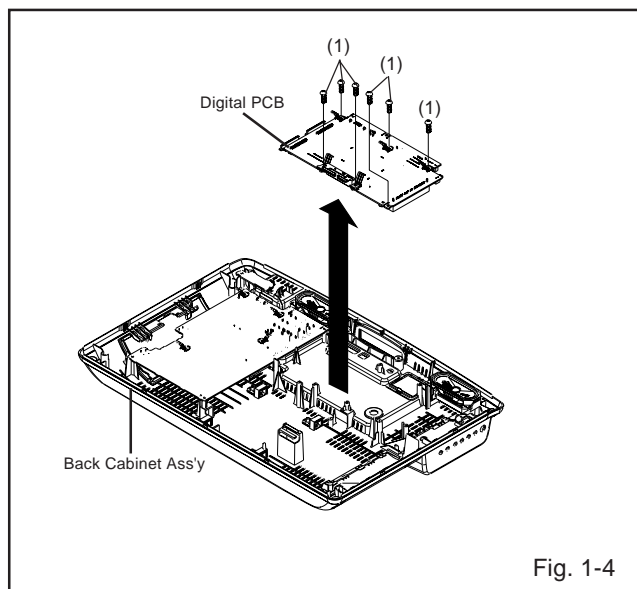


Fig. 1-3

DISASSEMBLY INSTRUCTIONS

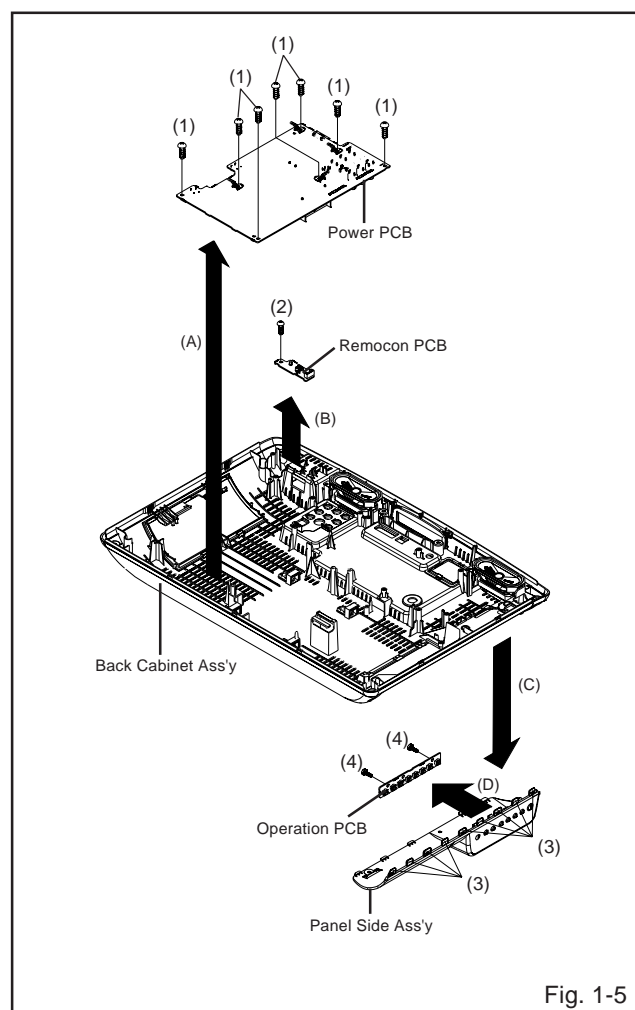
1-4: DIGITAL PCB (Refer to Fig. 1-4)

1. Remove the 6 screws (1).
2. Disconnect the following connector: **(CP501 and CP8101)**.
3. Disconnect the following connector: **(CP2201)**.
4. Remove the Digital PCB in the direction of arrow.



1-5: POWER PCB/REMOCON PCB/OPERATION PCB (Refer to Fig. 1-5)

1. Remove the 7 screws (1).
2. Remove the Power PCB in the direction of arrow (A).
3. Disconnect the following connector: **(CP7601)**.
4. Remove the screw (2).
5. Remove the Remocon PCB in the direction of arrow (B).
6. Push 9 supports (3).
7. Remove the Panel Side Ass'y in the direction of arrow (C).
8. Remove the 2 screws (4).
9. Remove the Operation PCB in the direction of arrow (D).



DISASSEMBLY INSTRUCTIONS

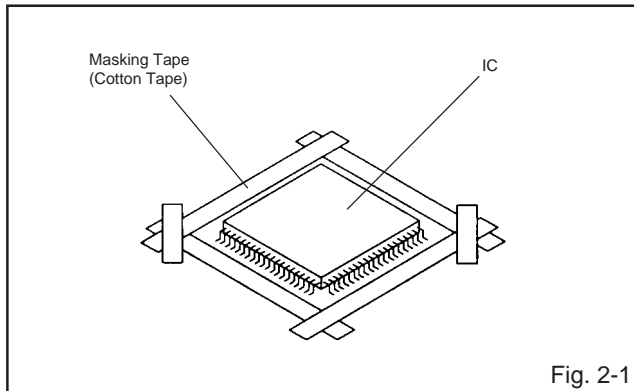
2.REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. **(Refer to Fig. 2-1.)**

NOTE

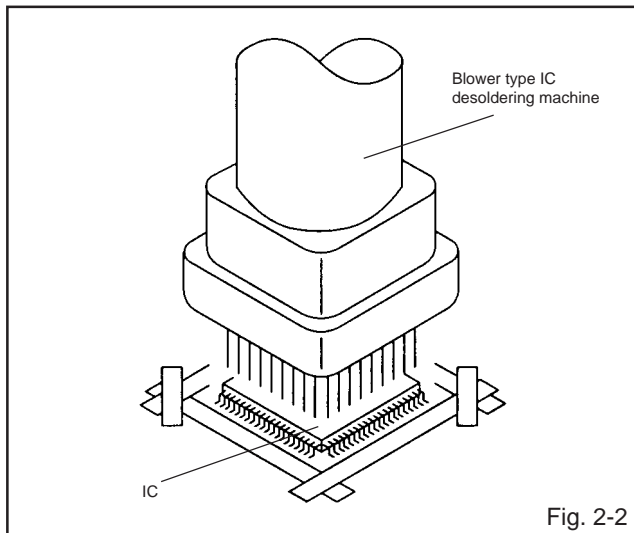
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. **(Refer to Fig. 2-2.)**

NOTE

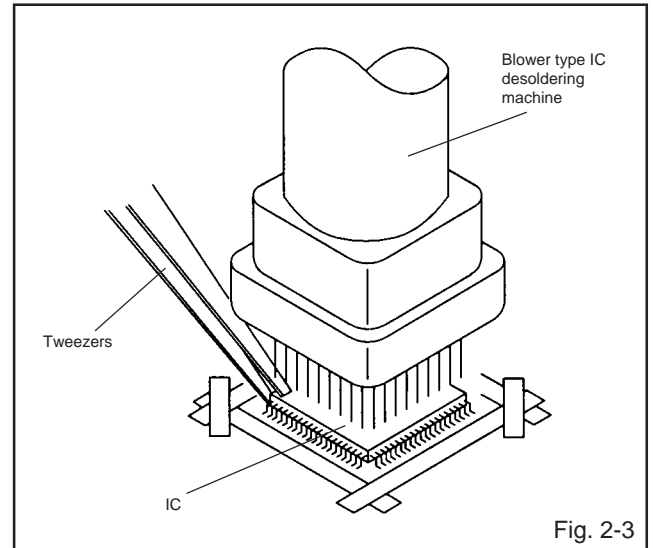
Do not rotate or move the IC back and forth unit IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using a tweezers and remove the IC by moving with the IC desoldering machine. **(Refer to Fig. 2-3.)**

NOTE

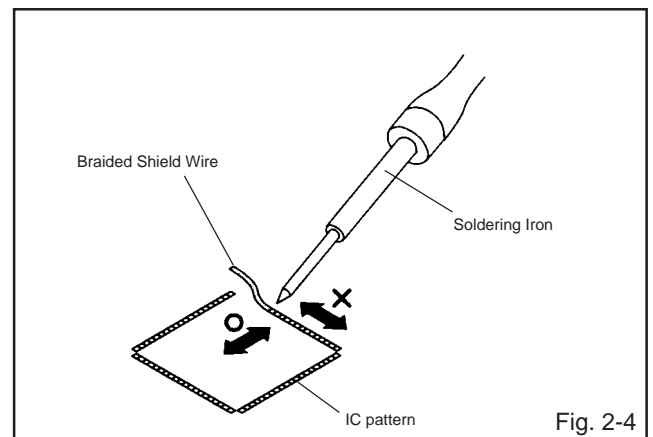
Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.



4. Peel off the Masking Tape.
5. Absorb the solder left on the pattern using the Braided Shield Wire. **(Refer to Fig. 2-4.)**

NOTE

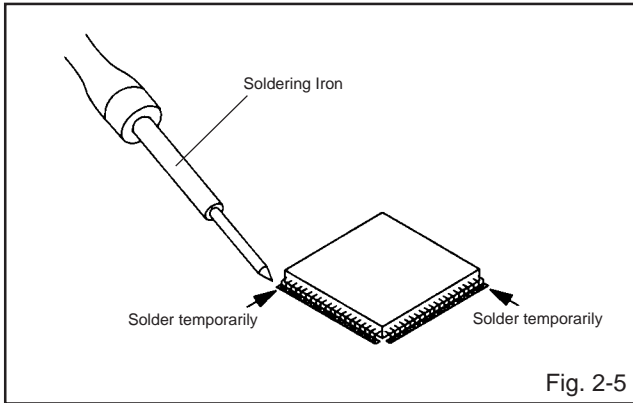
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



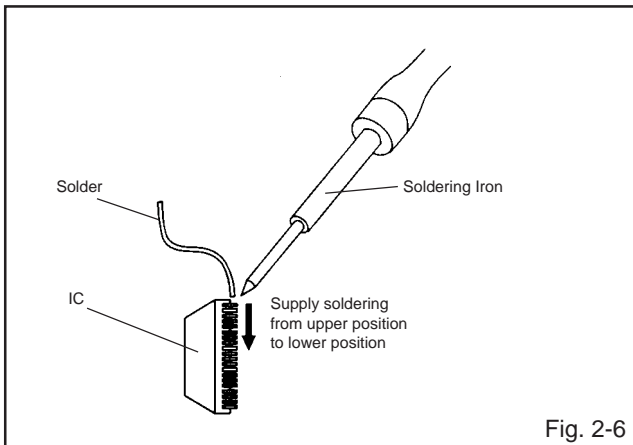
DISASSEMBLY INSTRUCTIONS

INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. (Refer to Fig. 2-5.)



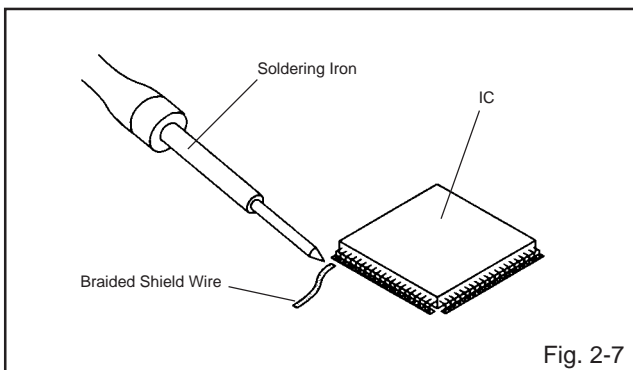
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 2-6.)



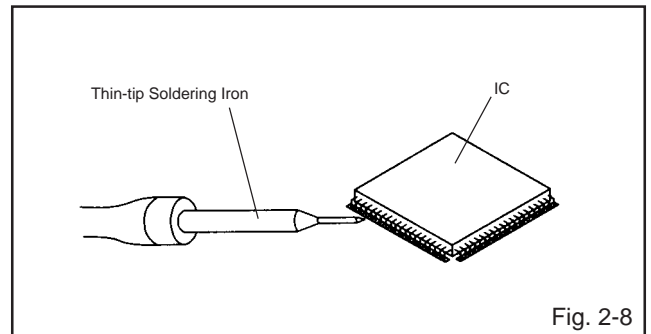
3. Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 2-7.)

NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 2-8.)



5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, be always sure to replace the IC in this case.

SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than a the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
Power ON	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
Power ON	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
Power ON	VOL. DOWN (Minimum)	6	2 sec.	Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
Power ON	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA and MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
Power ON	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

WHEN REPLACING EEPROM (MEMORY) IC

CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS AND MICON VERSION

Initial total of MEMORY IC, POWER ON total hours and MICON VERSION can be checked on the screen. Total hours are displayed in 16 system of notation.

NOTE: If you set a factory initialization, the total hours is reset to "0".

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, turn off the power.

NOTE: The each item value might be different according to each set.

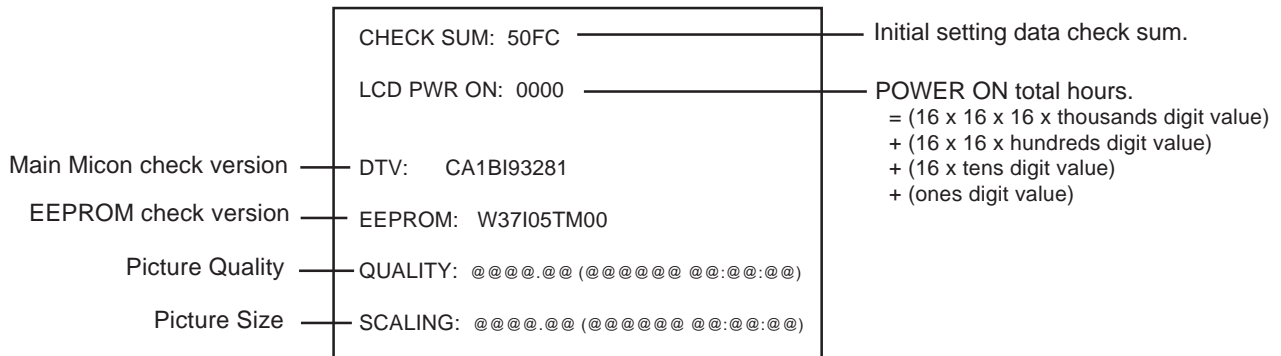


FIG. 1

CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds. ADDRESS and DATA should appear as **FIG 2**.

NOTE: No need to set data other position than 0D00 ~0EFF.

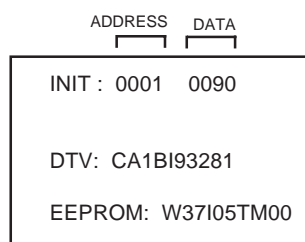


FIG. 2

4. ADDRESS is now selected and should "blink". Using the CH. UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press VOL.UP/DOWN button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using CH. UP/DOWN button until required DATA value has been selected.
7. Pressing VOL.UP/DOWN button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

After the data input, set to the initializing of shipping.

10. Turn on the POWER, and set to the TV mode.
 11. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
 12. After the finishing of the initializing of shipping, the unit will turn off automatically.
- The unit will now have the correct DATA for the new MEMORY IC.

ELECTRICAL ADJUSTMENTS

1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (**YG6260M**) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor).

Prepare the following measurement tools for electrical adjustments.

1. Pattern Generator

On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (**9**) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in **Fig. 1-1**.

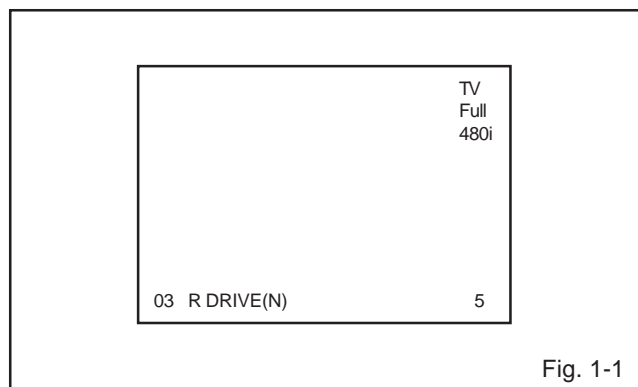


Fig. 1-1

3. Use the CH UP/DOWN button or Channel button (**0-9**) on the remote control to select the options shown in **Fig. 1-2**.
4. Press the MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for TV, AV, COMPONENT, HDMI and PC mode, press the INPUT SELECT button on the remote control to set to the TV, AV, COMPONENT, HDMI and PC mode.
6. Receive the DIGITAL broadcasting.
7. To display the adjustment screen for DTV mode, select the digital channel.
8. Press the VOL.DOWN button on the set and the channel (**9**) on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION
03	R DRIVE(N)	34	BRIGHTNESS MIN
04	R CUTOFF(N)	35	TINT
05	G DRIVE(N)	36	SHARP H1 MAX
06	G CUTOFF(N)	37	SHARP H1 MIN
07	B DRIVE(N)	38	SHARP H2 MAX
08	B CUTOFF(N)	39	SHARP H2 MIN
09	R DRIVE(C)	40	SHARP H3 MAX
10	R CUTOFF(C)	41	SHARP H3 MIN
11	G DRIVE(C)	42	SHARP H4 MAX
12	G CUTOFF(C)	43	SHARP H4 MIN
13	B DRIVE(C)	44	SHARP H5 MAX
14	B CUTOFF(C)	45	SHARP H5 MIN
15	R DRIVE(W)	46	SHARP V1 MAX
16	R CUTOFF(W)	47	SHARP V1 MIN
17	G DRIVE(W)	48	SHARP V2 MAX
18	G CUTOFF(W)	49	SHARP V2 MIN
19	B DRIVE(W)	50	CONTRAST CENTER
20	B CUT OFF(W)	51	CONTRAST MAX
29	BAK LIGHT CENT	52	CONTRAST MIN
30	BAK LIGHT MAX	53	COLOR CENTER
31	BAK LIGHT MIN	54	COLOR MAX
32	BRIGHTNESS CENT	55	COLOR MIN
33	BRIGHTNESS MAX	58	CONTRAST 40

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**03**) on the remote control to select "R DRIVE(N)".
5. Press the CH. UP/DOWN button on the remote control to select the "R DRIVE(N)", "R CUTOFF(N)", "B DRIVE(N)", "B CUTOFF(N)", "R DRIVE(C)", "R CUTOFF(C)", "B DRIVE(C)", "B CUTOFF(C)", "R DRIVE(W)", "R CUTOFF(W)", "B DRIVE(W)" or "B CUTOFF(W)".
6. Adjust the CH. UP/DOWN button on the remote control to whiten the "R DRIVE(N)", "R CUTOFF(N)", "B DRIVE(N)", "B CUTOFF(N)", "R DRIVE(C)", "R CUTOFF(C)", "B DRIVE(C)", "B CUTOFF(C)", "R DRIVE(W)", "R CUTOFF(W)", "B DRIVE(W)" and "B CUTOFF(W)". at each step tone sections equally.
7. Perform the above adjustments 5 and 6 until the white color is achieved.

ELECTRICAL ADJUSTMENTS

2-2: BRIGHTNESS CENT

1. Receive the monoscope pattern. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
4. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "130".
5. Check if the picture is normal.
6. Receive the monoscope pattern. (VIDEO Input)
7. Press the INPUT SELECT button on the remote control to set to the AV mode.
8. Using the remote control, set the brightness and contrast to normal position.
9. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
10. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "131".
11. Check if the picture is normal.
12. Receive the monoscope pattern. (S-VIDEO Input)
13. Press the INPUT SELECT button on the remote control to set to the AV(S) mode. Then perform the above adjustments 8~11.
14. Playback the DVD(480i) disc. (COMPONENT Input)
15. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
16. Using the remote control, set the brightness and contrast to normal position.
17. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
18. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "132".
19. Check if the picture is normal.
20. Playback the DVD(480p) disc. (COMPONENT Input)
21. Press the INPUT button on the remote control to set to the COMPONENT mode. Then perform the above adjustments 16~18.
22. Playback the DVD(720p) disc. (COMPONENT Input)
23. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode. Then perform the above adjustments 16~18.
24. Playback the DVD(1080i) disc. (COMPONENT Input)
25. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode. Then perform the above adjustments 16~18.
26. Playback the DVD(480i) disc. (HDMI Input)
27. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
28. Using the remote control, set the brightness and contrast to normal position.
29. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
30. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "127".
31. Check if the picture is normal.

2-3: CONTRAST MAX

1. Receive the color bar pattern. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
4. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "140".
5. Check if the picture is normal.
6. Receive the color bar pattern. (VIDEO Input)
7. Press the INPUT SELECT button on the remote control to set to the AV mode.
8. Using the remote control, set the brightness and contrast to normal position.
9. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
10. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "146".
11. Check if the picture is normal.
12. Receive the color bar pattern. (S-VIDEO Input)
13. Press the INPUT SELECT button on the remote control to set to the AV(S) mode. Then perform the above adjustments 8~11.
14. Playback the DVD(480i) disc. (COMPONENT Input)
15. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
16. Using the remote control, set the brightness and contrast to normal position.
17. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
18. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "142".
19. Check if the picture is normal.
20. Playback the DVD(480i) disc. (HDMI Input)
21. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
22. Using the remote control, set the brightness and contrast to normal position.
23. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "BRIGHTNESS CENT".
24. Press the CH. UP/DOWN button on the remote control until the contrast step No. becomes "117".
25. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-4: CONTRAST 40

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
5. Press the CH.UP/DOWN button on the remote control until the contrast step No. becomes "130".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Press the INPUT SELECT button on the remote control to set to the AV mode.
9. Using the remote control, set the brightness and contrast to normal position.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
11. Press the CH.UP/DOWN button on the remote control until the contrast step No. becomes "136".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(S) mode. Then perform the above adjustments 8~12.
16. Receive the color bar pattern. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
20. Press the CH.UP/DOWN button on the remote control until the contrast step No. becomes "134".
21. Check if the picture is normal.
22. Receive the color bar pattern. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
26. Press the CH.UP/DOWN button on the remote control until the contrast step No. becomes "110".
27. Check if the picture is normal.

2-5: CONTRAST CENTER

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
5. Press the CH UP/DOWN button on the remote control until the contrast step No. becomes "98".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
11. Press the CH UP/DOWN button on the remote control until the contrast step No. becomes "104".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Receive the color bar pattern. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
20. Press the CH UP/DOWN button on the remote control until the contrast step No. becomes "100".
21. Check if the picture is normal.
22. Receive the color bar pattern. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
26. Press the CH UP/DOWN button on the remote control until the contrast step No. becomes "83".
27. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-6: Confirmation of Fixed Value (Step No.)

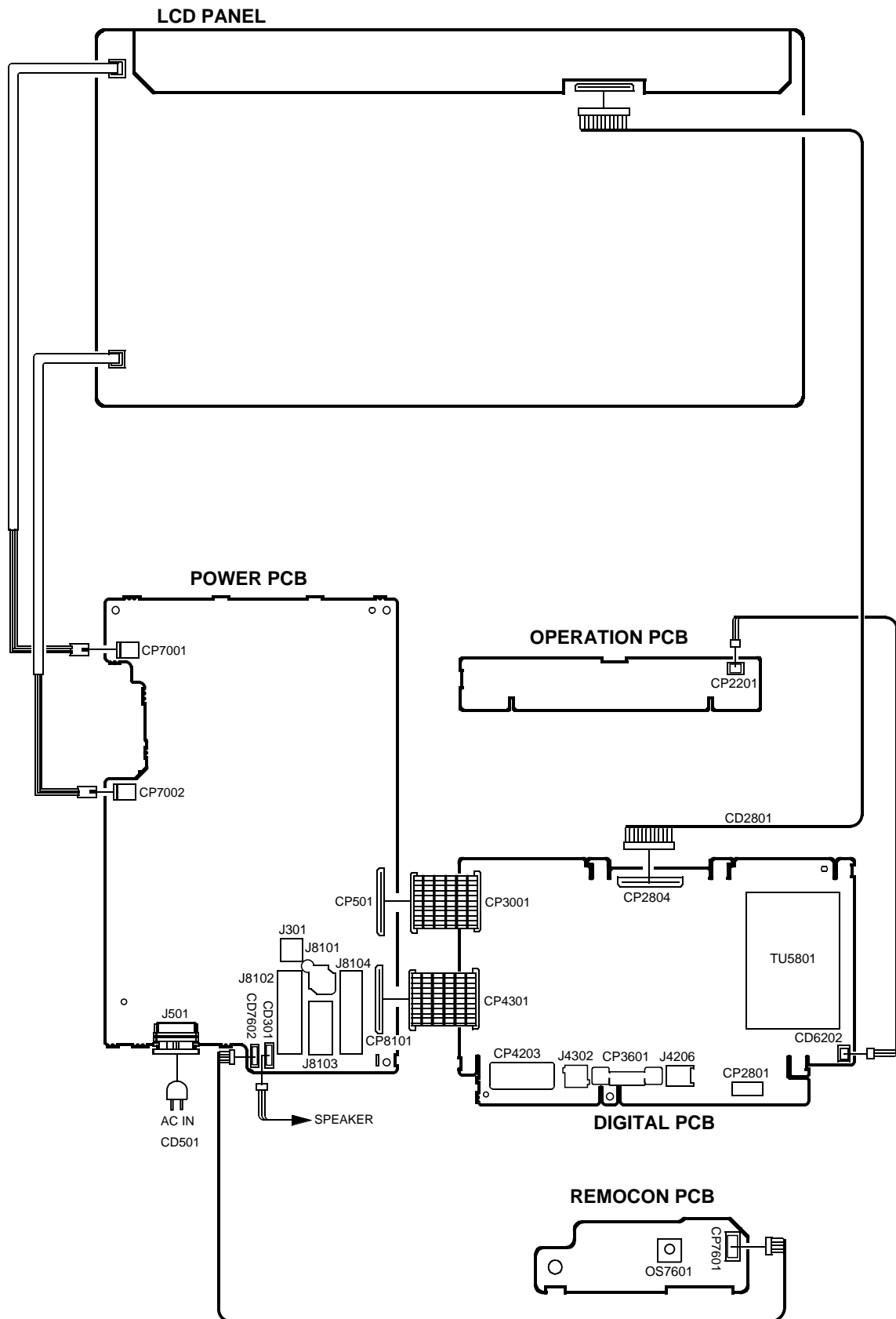
Please check if the fixed values of each of the adjustment item is set correctly referring below. (TV/AV/COMPONENT/HDMI/PC/DIGITAL TUNER)

NO.	FUCTION	TV	AV		COMPONENT					HDMI						PC						DIGITAL TUNER					
			CVBS	Y/C	480i	480p	720p	1080i	1080p	480i	480p	720p	1080i	1080p	VGA	640*480	720*400	800*600	1024*768	1280*768	1280*720	1360*768	480i	480p	720p	1080i	1080P
		Step No.	Step No.		Step No.					Step No.						Step No.						Step No.					
3	R.DRIVE (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4	R CUTOFF (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	G DRIVE (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	G CUTOFF (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	B DRIVE (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	B CUTOFF (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	R.DRIVE (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	R CUTOFF (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	G DRIVE (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	G CUTOFF (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	B DRIVE (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	B CUTOFF (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	R.DRIVE (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	R CUTOFF (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	G DRIVE (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	G CUTOFF (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	B DRIVE (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	B CUTOFF (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
29	BAK LIGHT CENT	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	
30	BAK LIGHT MAX	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	
31	BAK LIGHT MIN	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	
32	BRIGHT CENT	130	131	131	132	133	133	133	133	127	127	127	127	127	127	133	133	133	133	133	133	133	130	130	130	130	130
33	BRIGHT MAX	200	200	200	200	133	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
34	BRIGHT MIN	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
35	TINT	44	44	44	56	56	56	56	56	47	47	47	47	47	47	50	50	50	50	50	50	50	56	56	56	56	56
36	SHARP H1 MAX	255	255	255	56	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
37	SHARP H1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	SHARP H2 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
39	SHARP H2 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	SHARP H3 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
41	SHARP H3 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	SHARP H4 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
43	SHARP H4 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	SHARP H5 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
45	SHARP H5 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	SHARP V1 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
47	SHARP V1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	SHARP V2 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
49	SHARP V2 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	CONT CENTER	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
51	CONT MAX	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
52	CONT MIN	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
53	COLOR CENT	183	183	183	195	200	200	200	200	185	185	185	185	185	185	135	135	135	135	135	135	135	200	200	200	200	200
54	COLOR MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
55	COLOR MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	CONT 40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

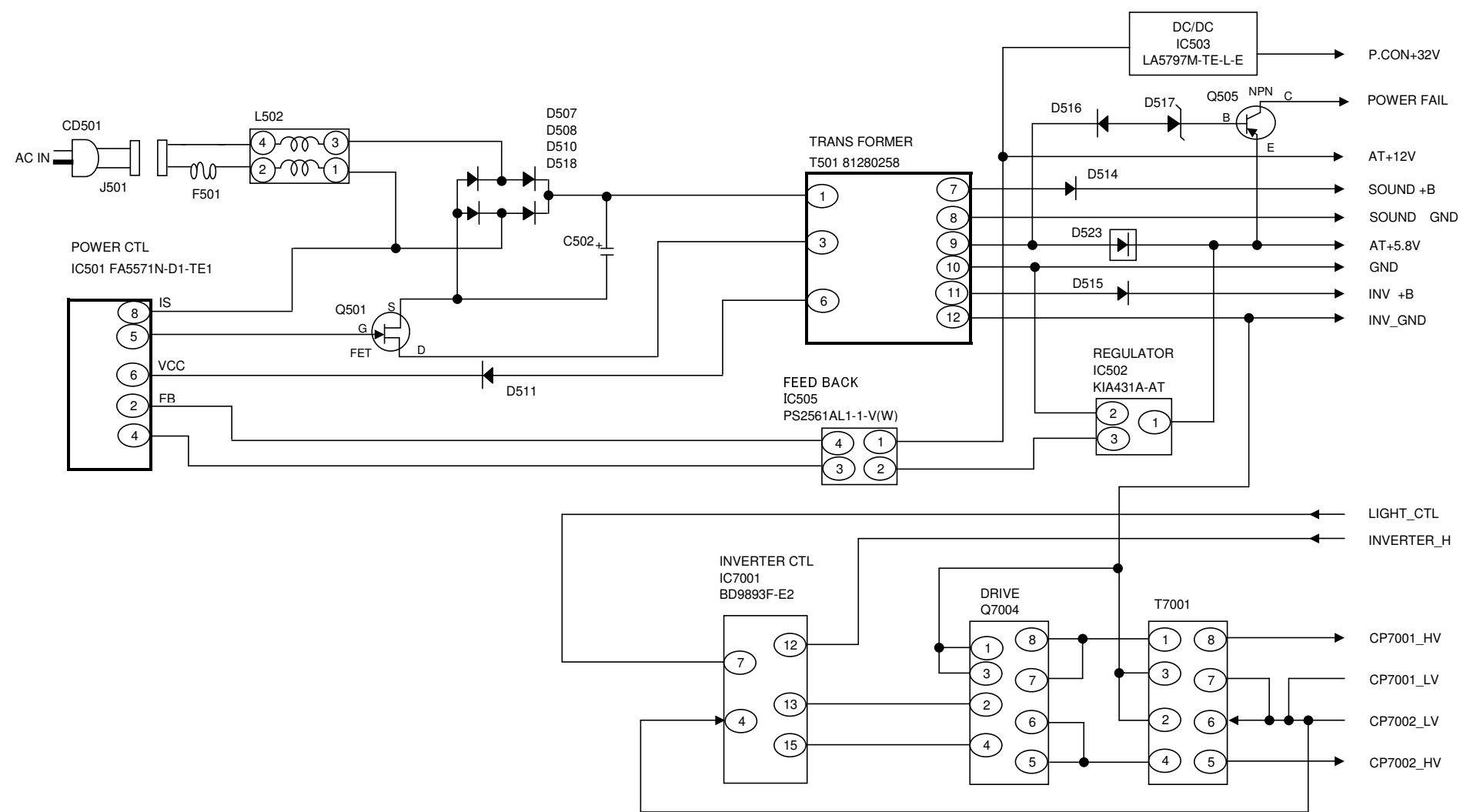
NOTE: For the step no. with * mark, please adjust it according to the situation of the set.

ELECTRICAL ADJUSTMENTS

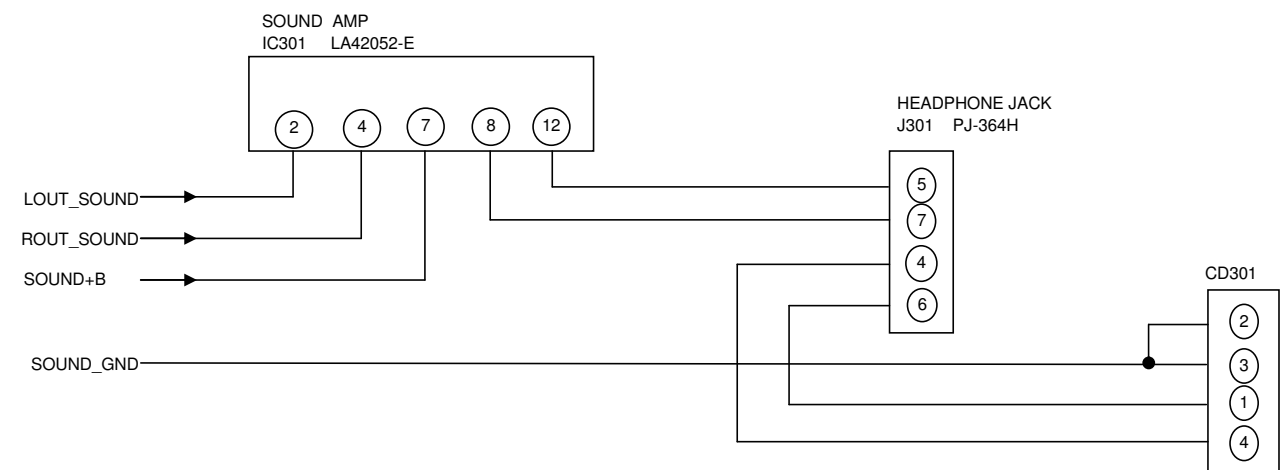
3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



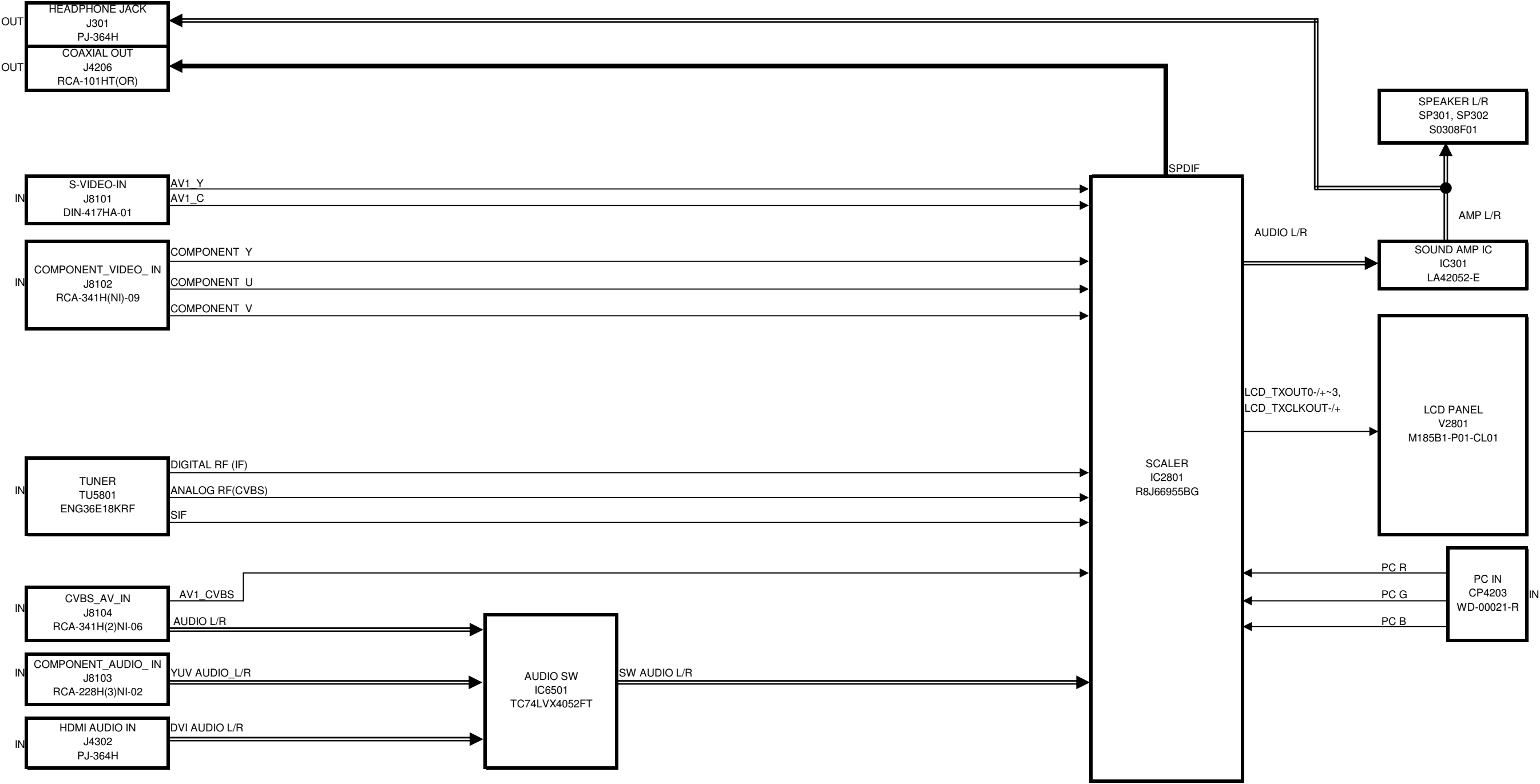
POWER BLOCK DIAGRAM



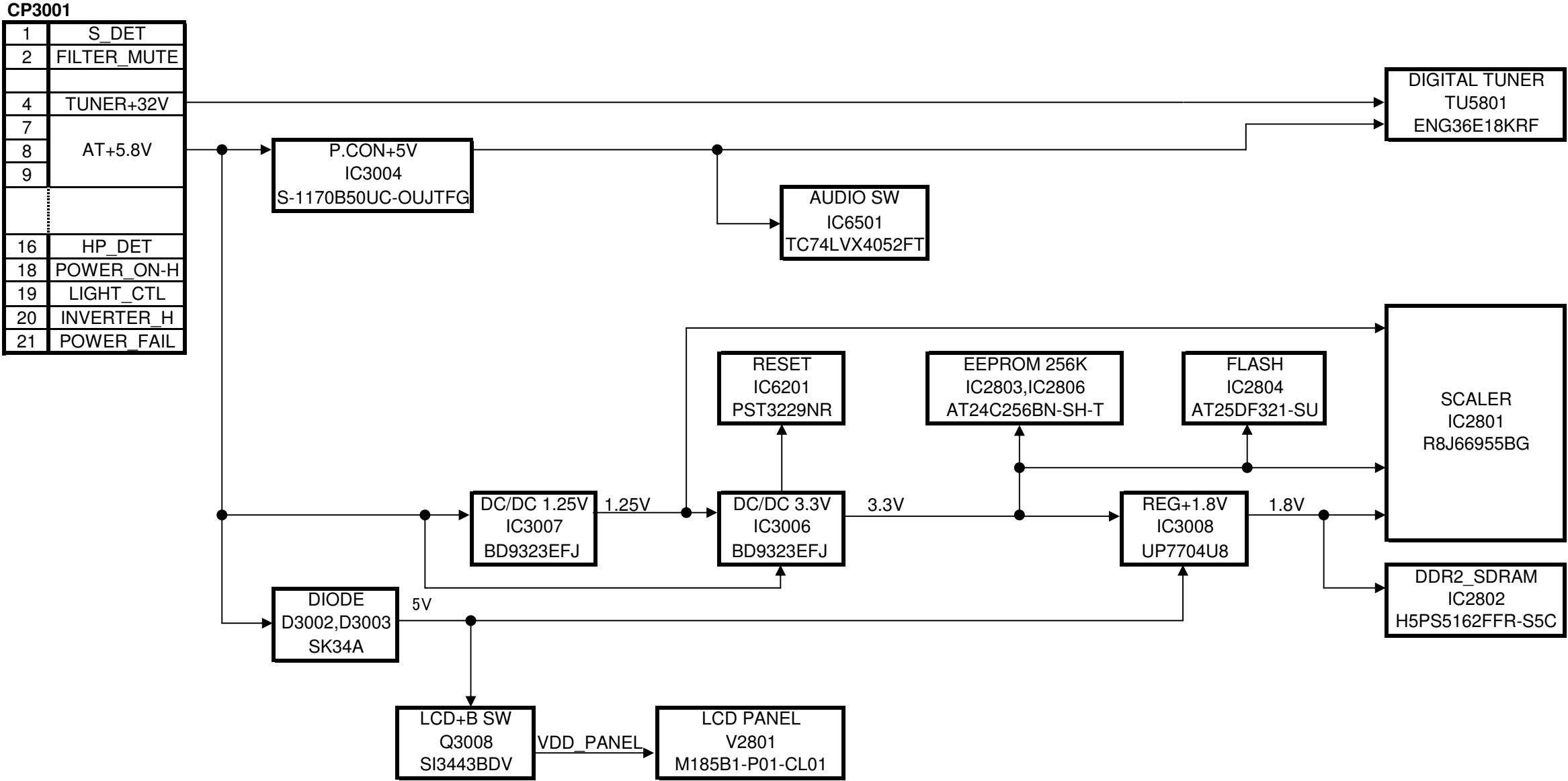
SOUND AMP DIAGRAM



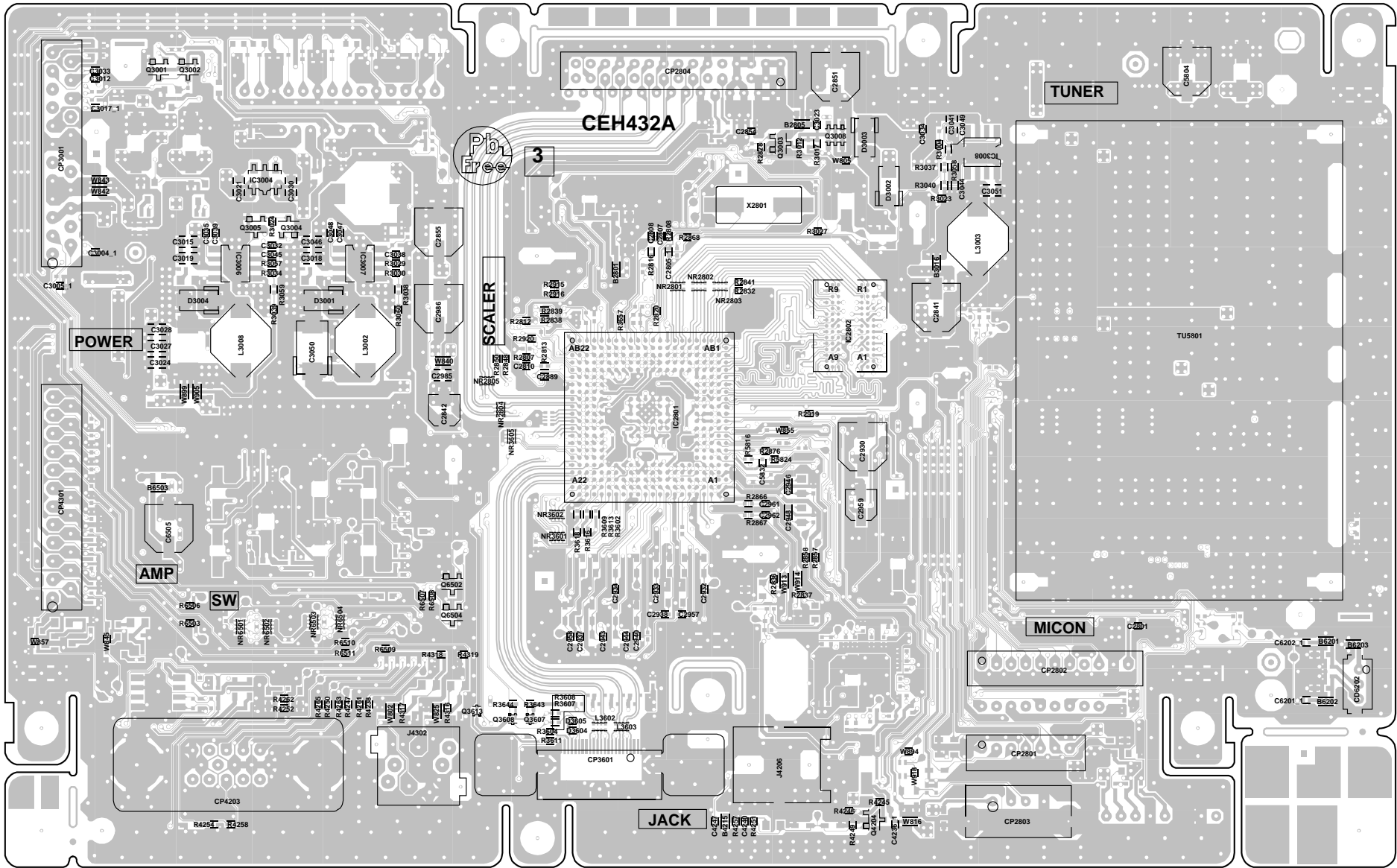
SIGNAL (DIGITAL PCB)BLOCK DIAGRAM



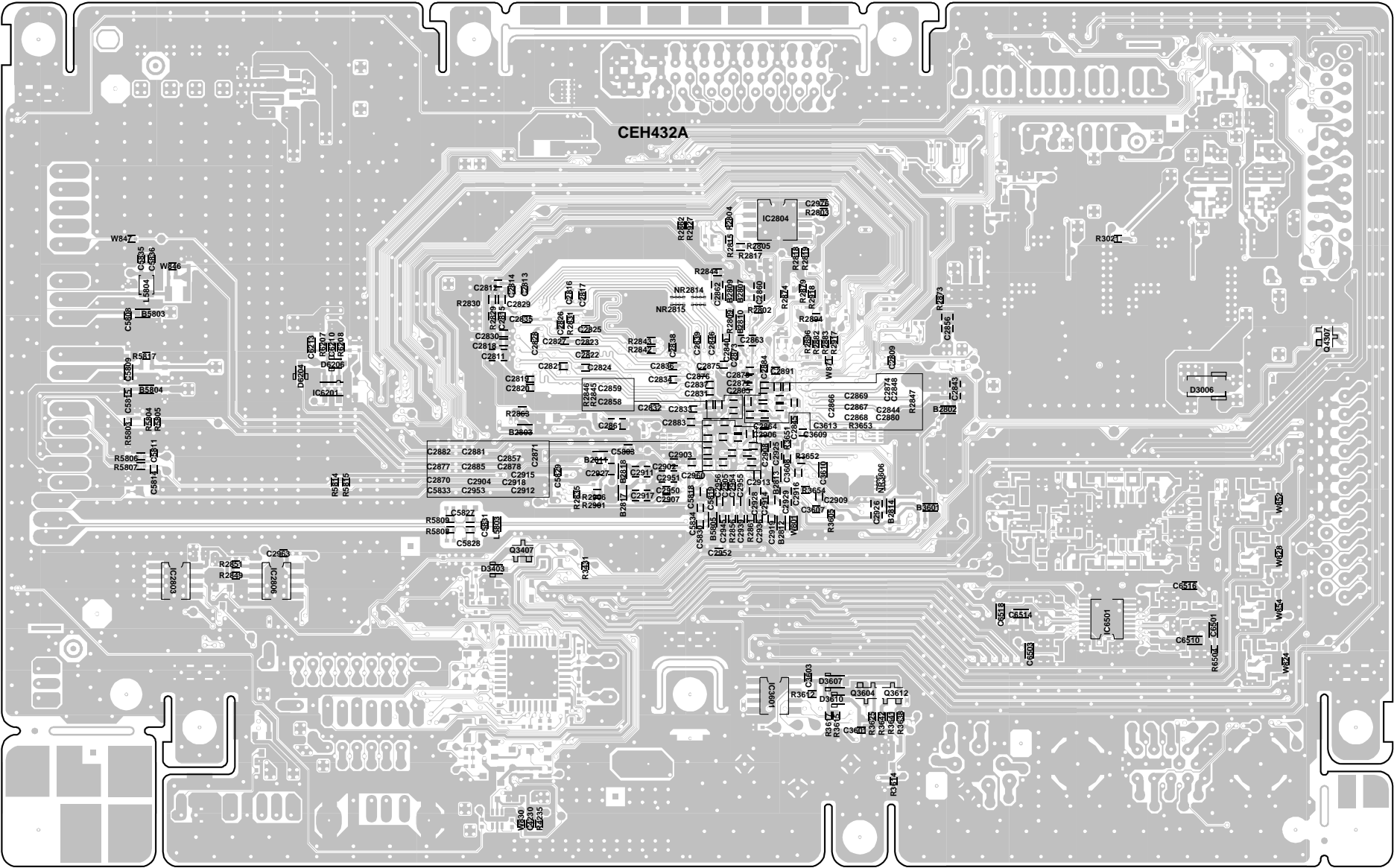
POWER(DIGITAL PCB) BLOCK DIAGRAM



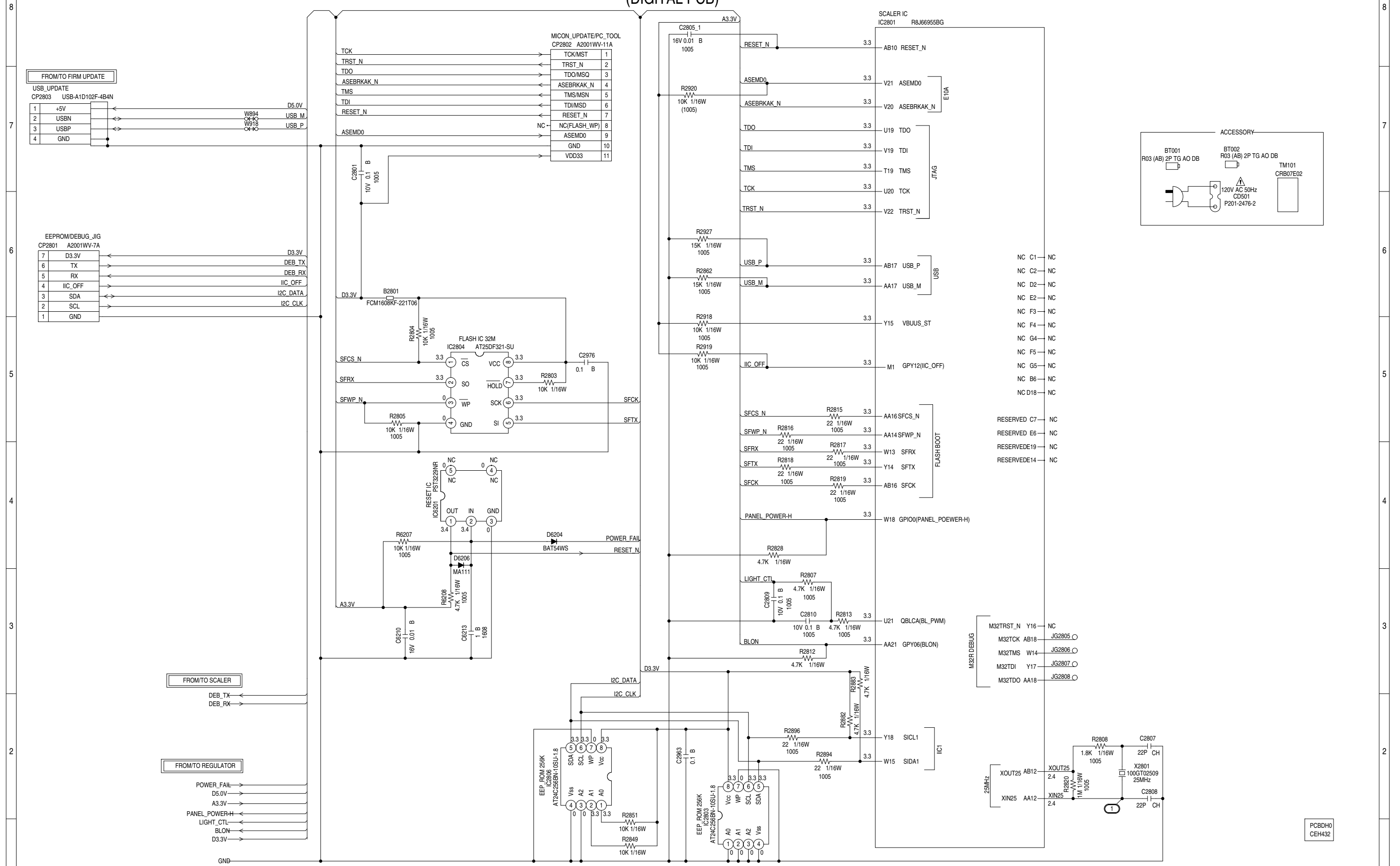
PRINTED CIRCUIT BOARDS
DIGITAL (TOP SIDE)



PRINTED CIRCUIT BOARDS
DIGITAL (BOTTOM SIDE)



FLASH SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

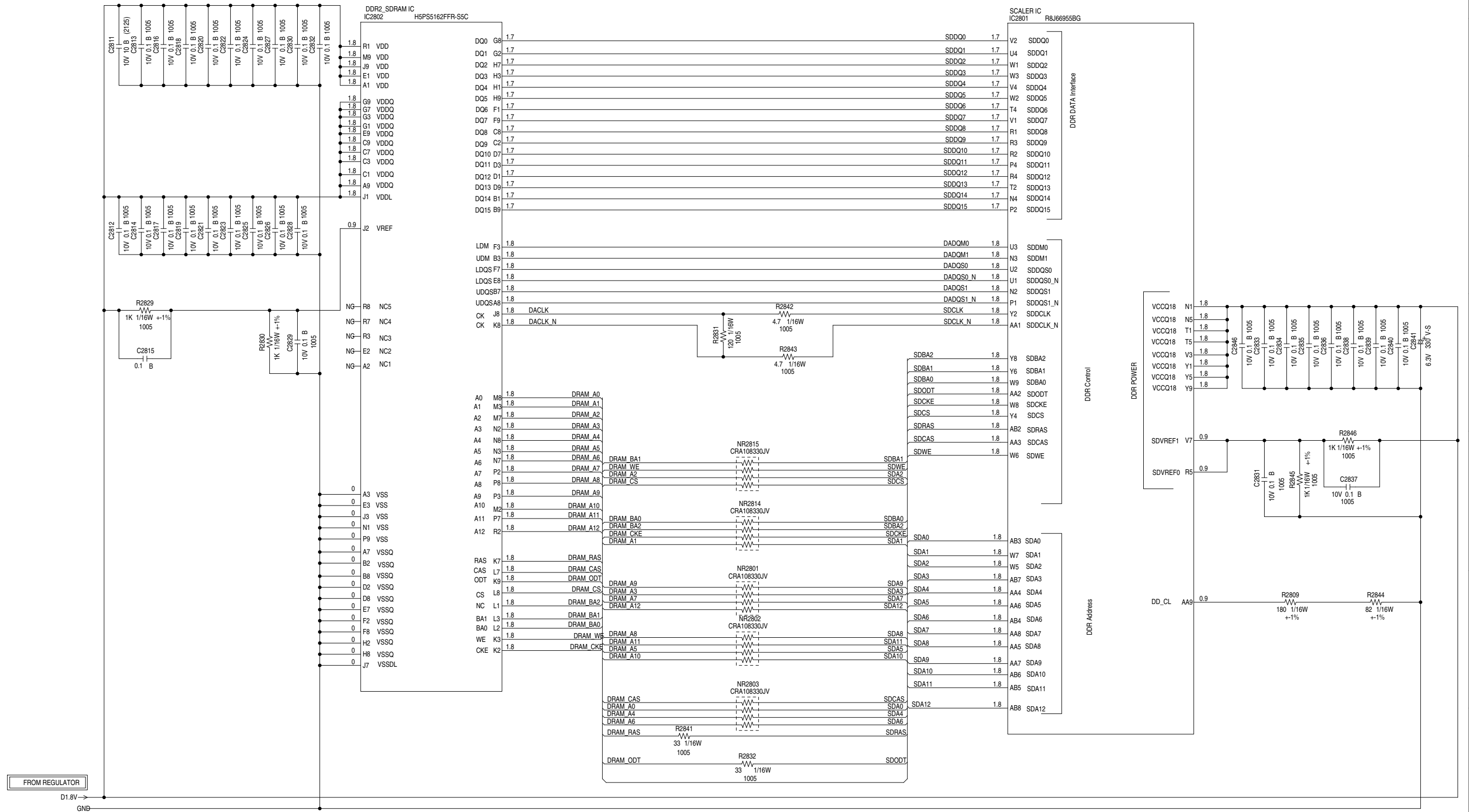
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION SINCE THESE PARTS MARKED BY ARE
CRITICAL FOR SAFETY,USE ONES
DESCRIBED IN PARTS LIST ONLY .

ATTENTION LES PIECES REPAREES PAR UN ETANT
DANGEREUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES

PCBDH0
CEH432

DDR SCHEMATIC DIAGRAM (DIGITAL PCB)

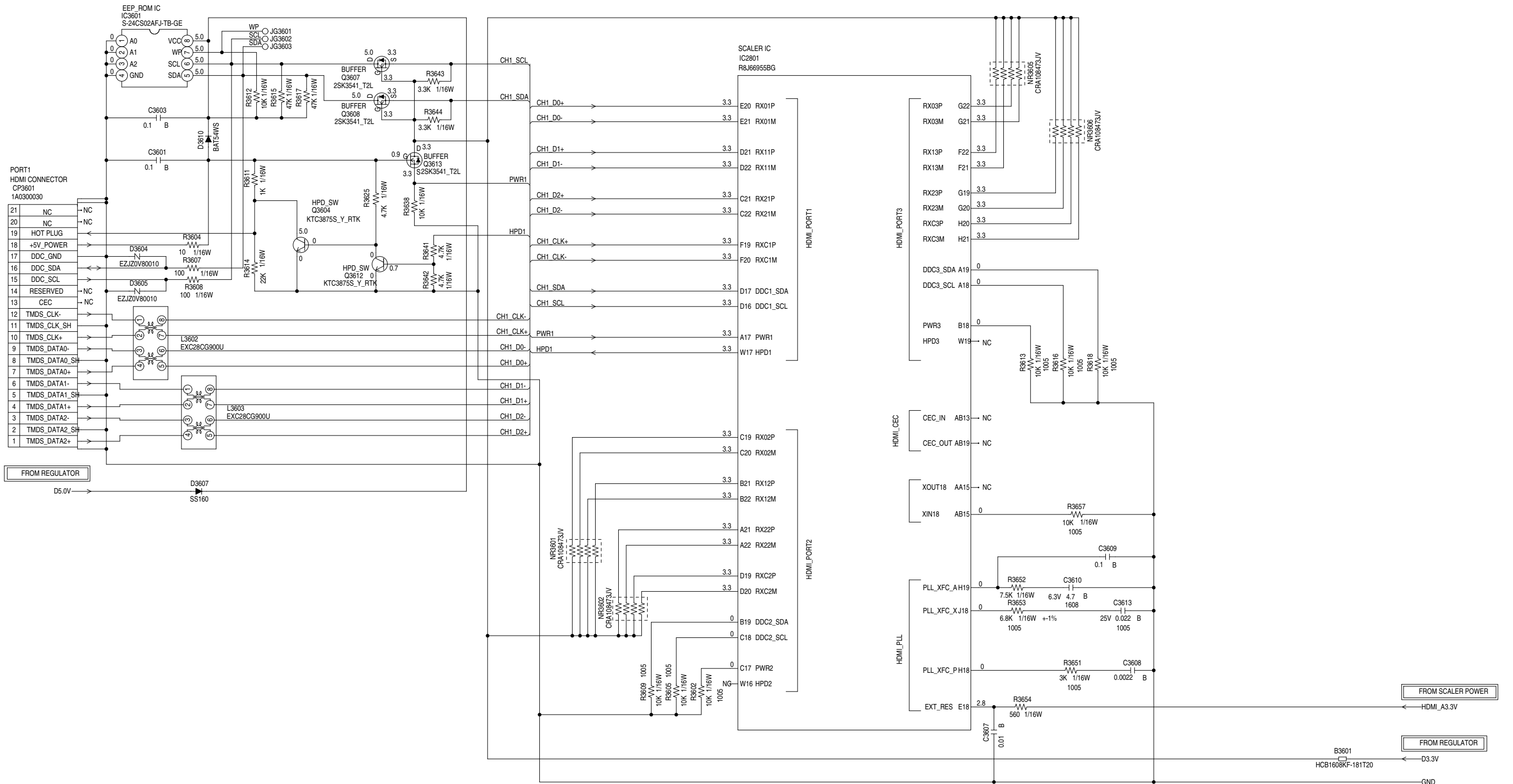


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEH432

HDMI SCHEMATIC DIAGRAM (DIGITAL PCB)

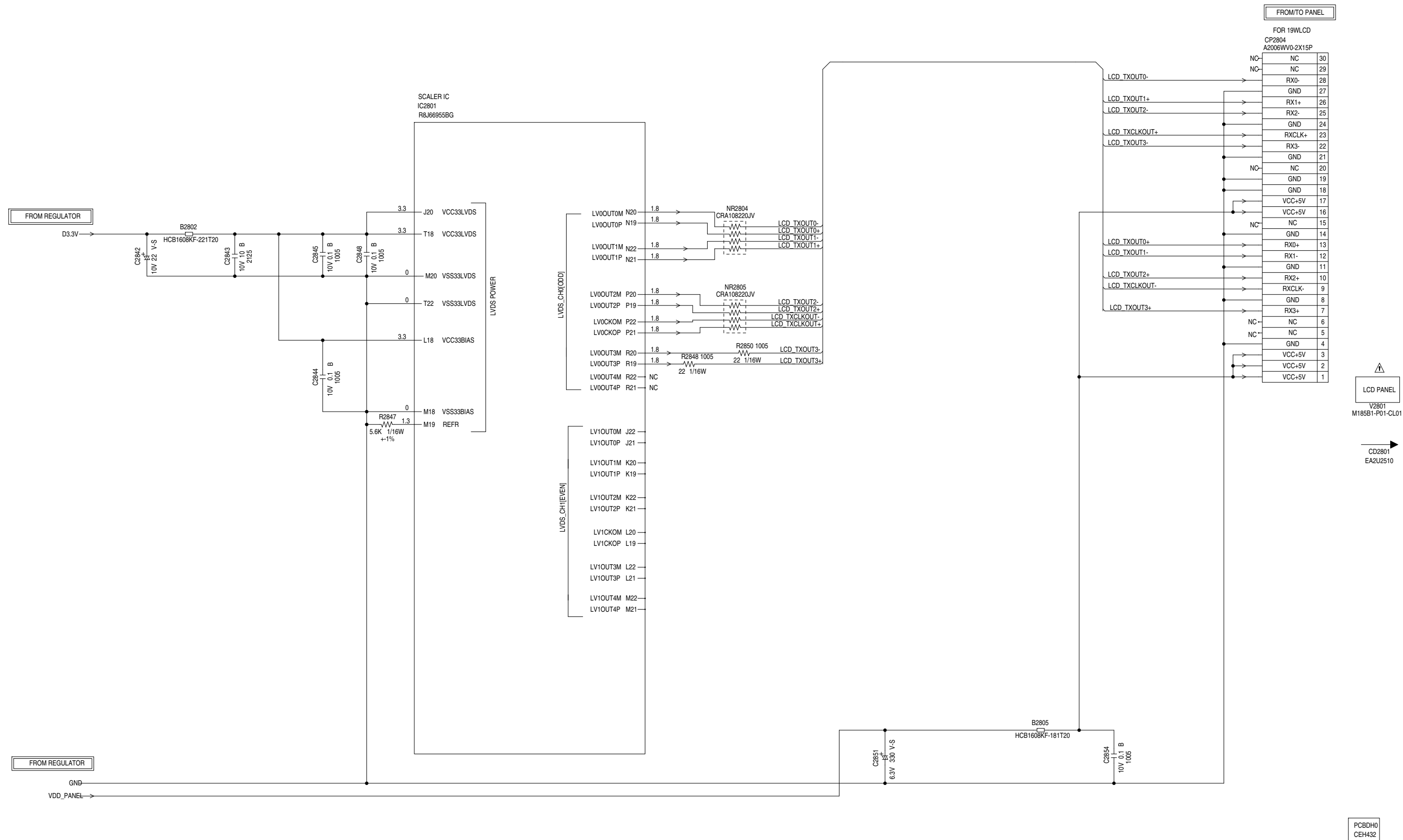


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEH432

LVDS SCHEMATIC DIAGRAM
(DIGITAL PCB)



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

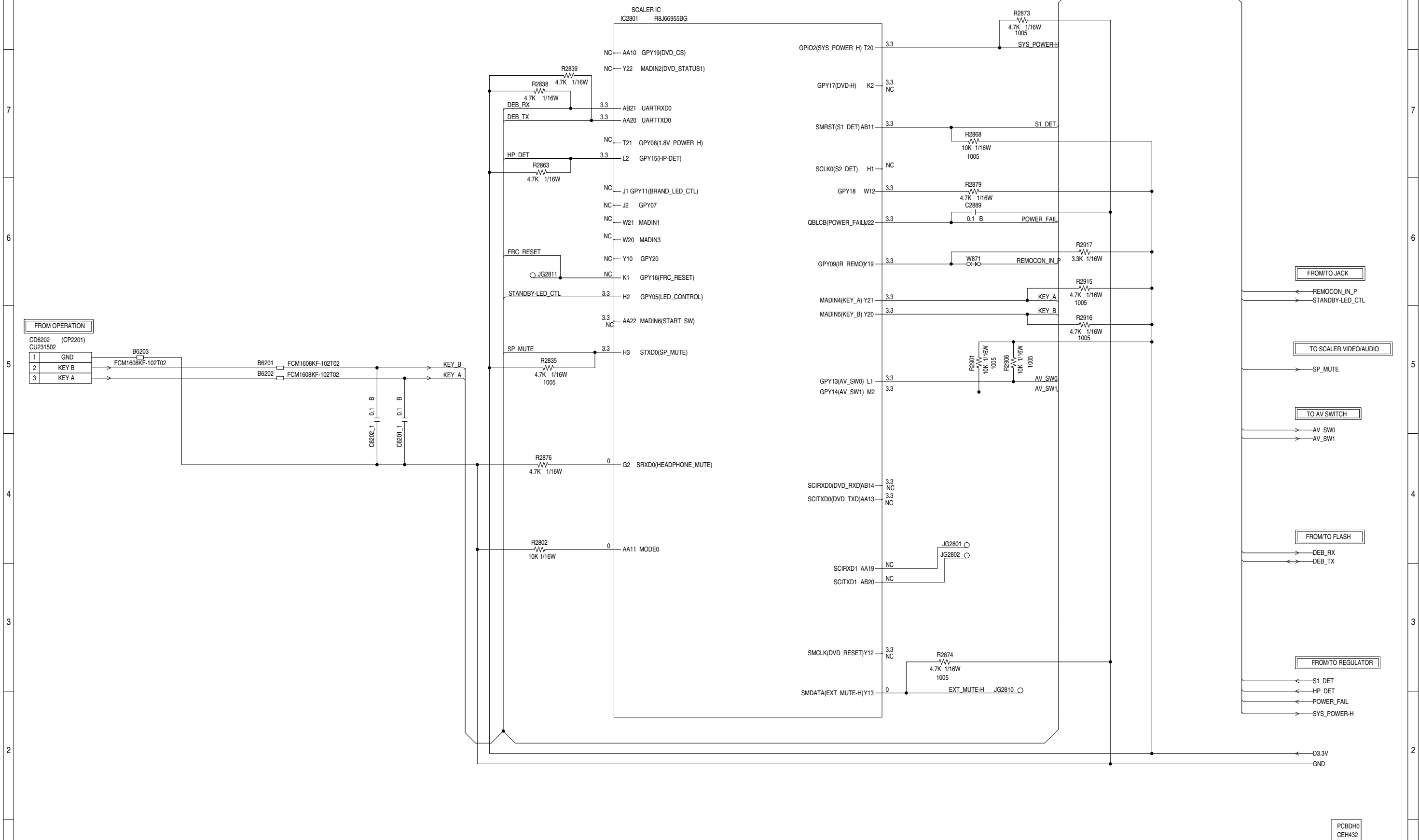
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION LES PIECES REPARÉES PAR UN ETANT
DANGEREUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES

CAUTION SINCE THESE PARTS MARKED BY ARE
CRITICAL FOR SAFETY,USE ONES
DESCRIBED IN PARTS LIST ONLY .

PCBDH0
CEH432

SCALER SCHEMATIC DIAGRAM
(DIGITAL PCB)

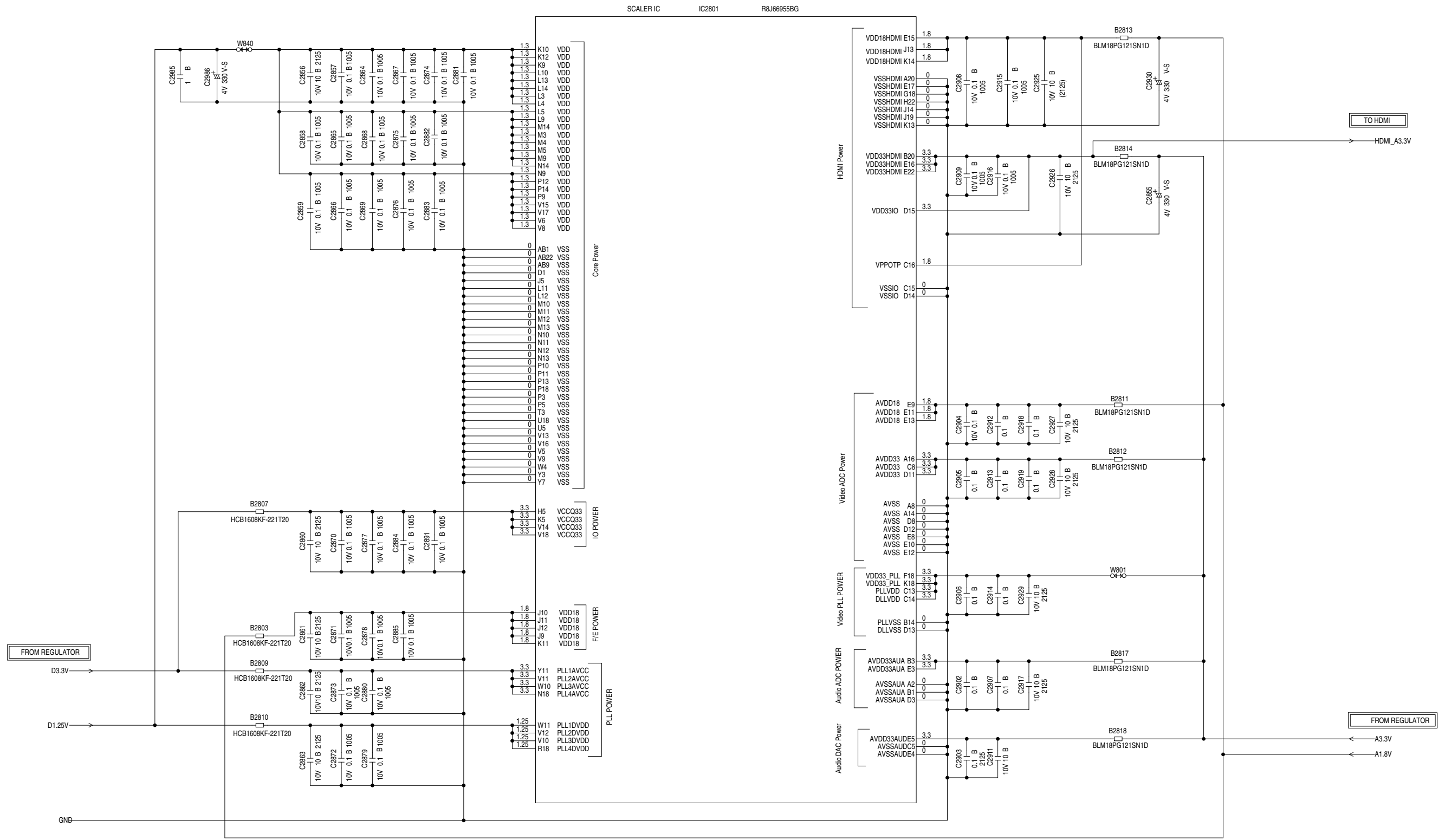


NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

SCALER POWER SCHEMATIC DIAGRAM

(DIGITAL PCB)

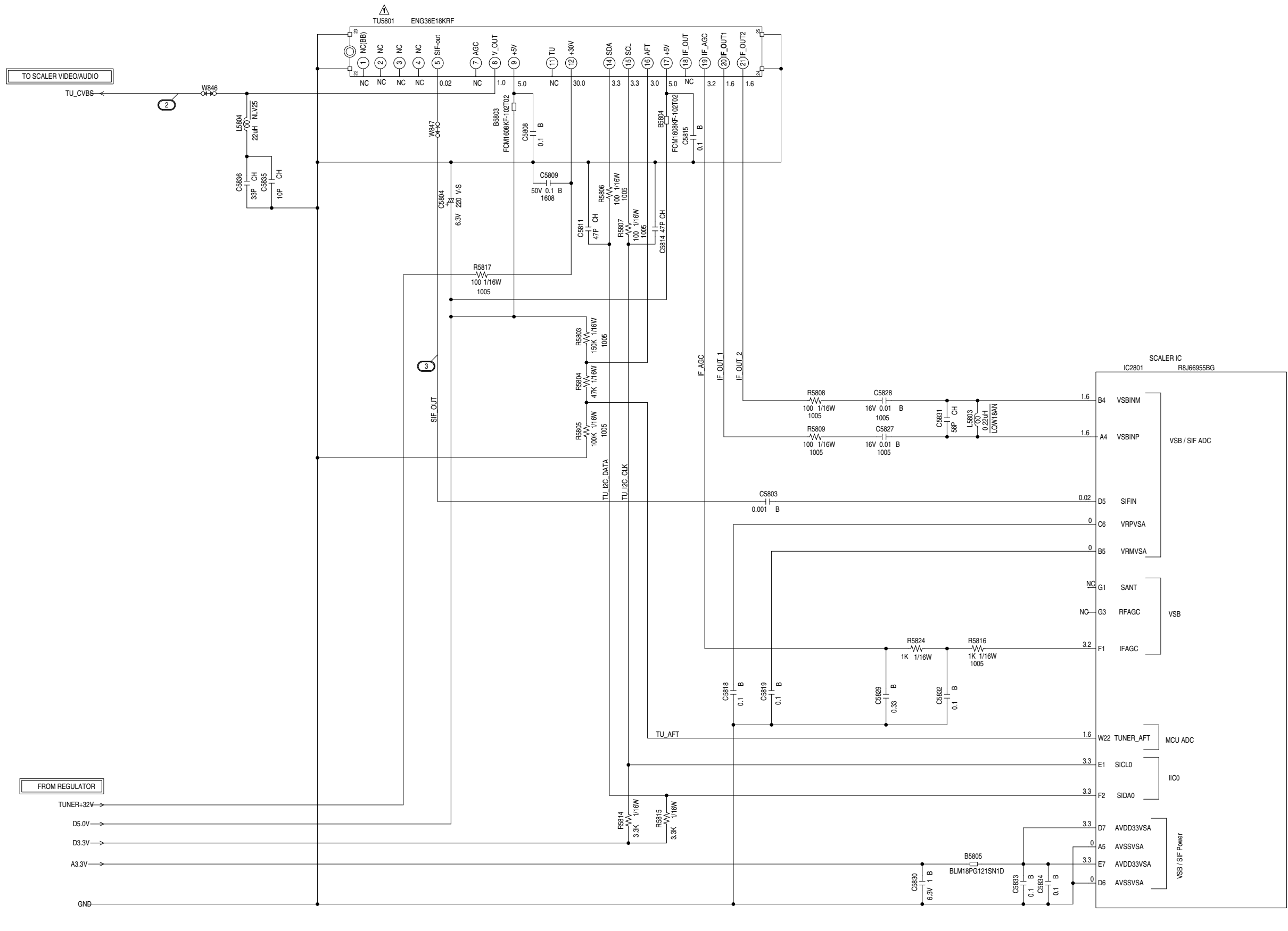


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEH432

TUNER SCHEMATIC DIAGRAM
(DIGITAL PCB)



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

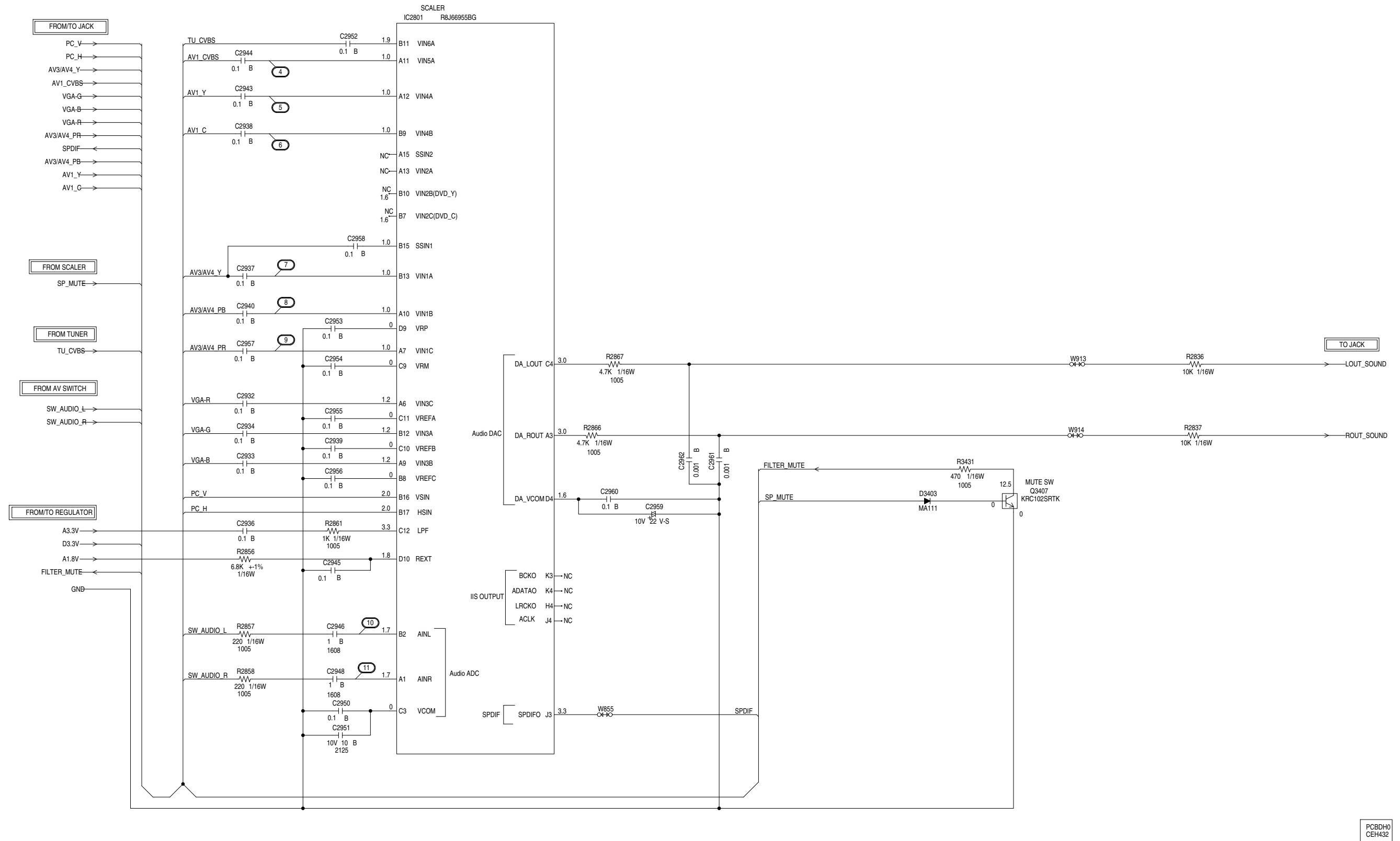
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION LES PIECES REPARÉES PAR UN ETANT
DANGEREUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES

CAUTION SINCE THESE PARTS MARKED BY ARE
CRITICAL FOR SAFETY,USE ONES
DESCRIBED IN PARTS LIST ONLY .

PCBDH0
CEH432

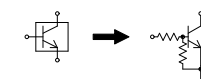
SCALER VIDEO/AUDIO SCHEMATIC DIAGRAM (DIGITAL PCB)



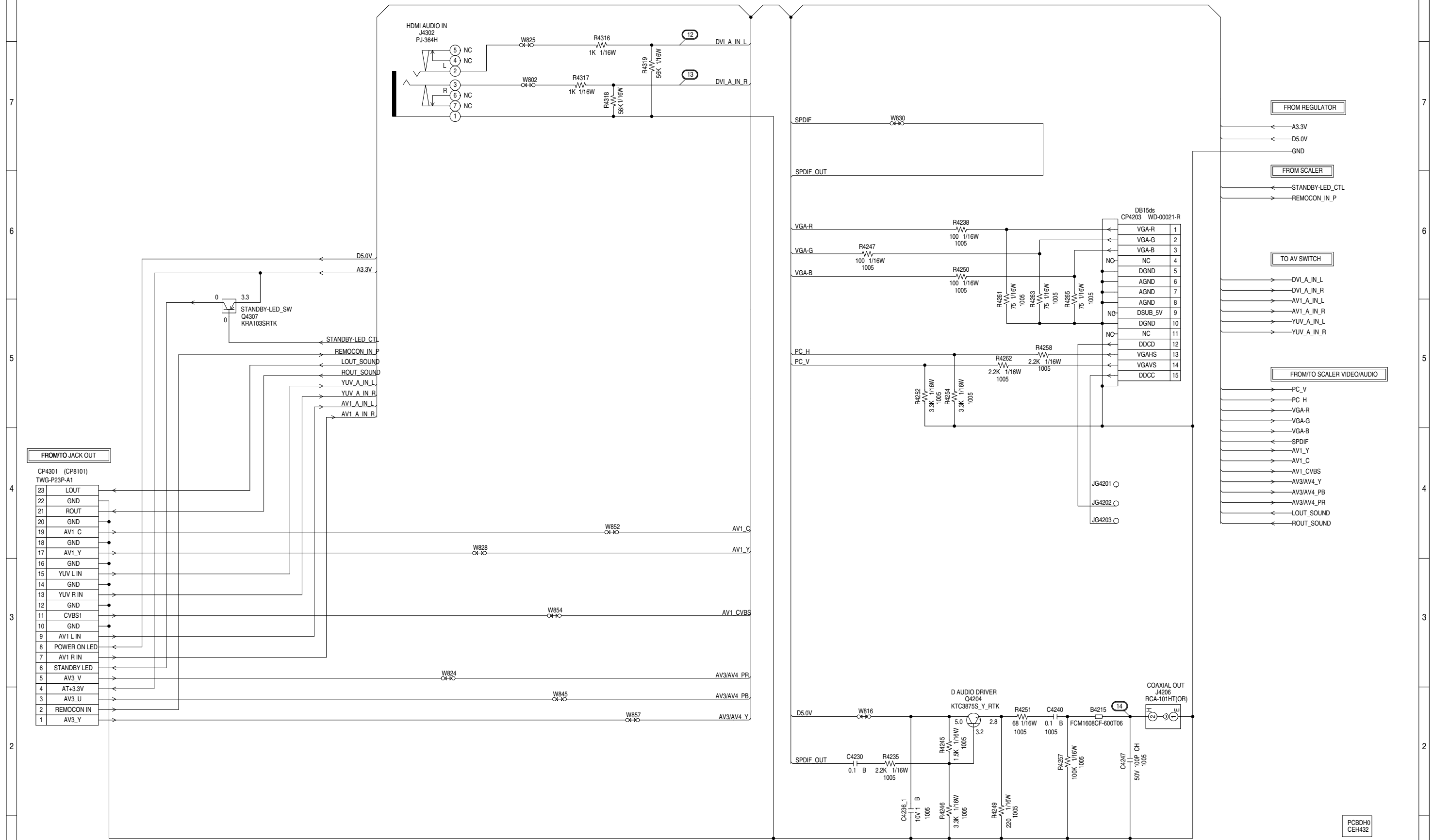
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR



JACK SCHEMATIC DIAGRAM
(DIGITAL PCB)



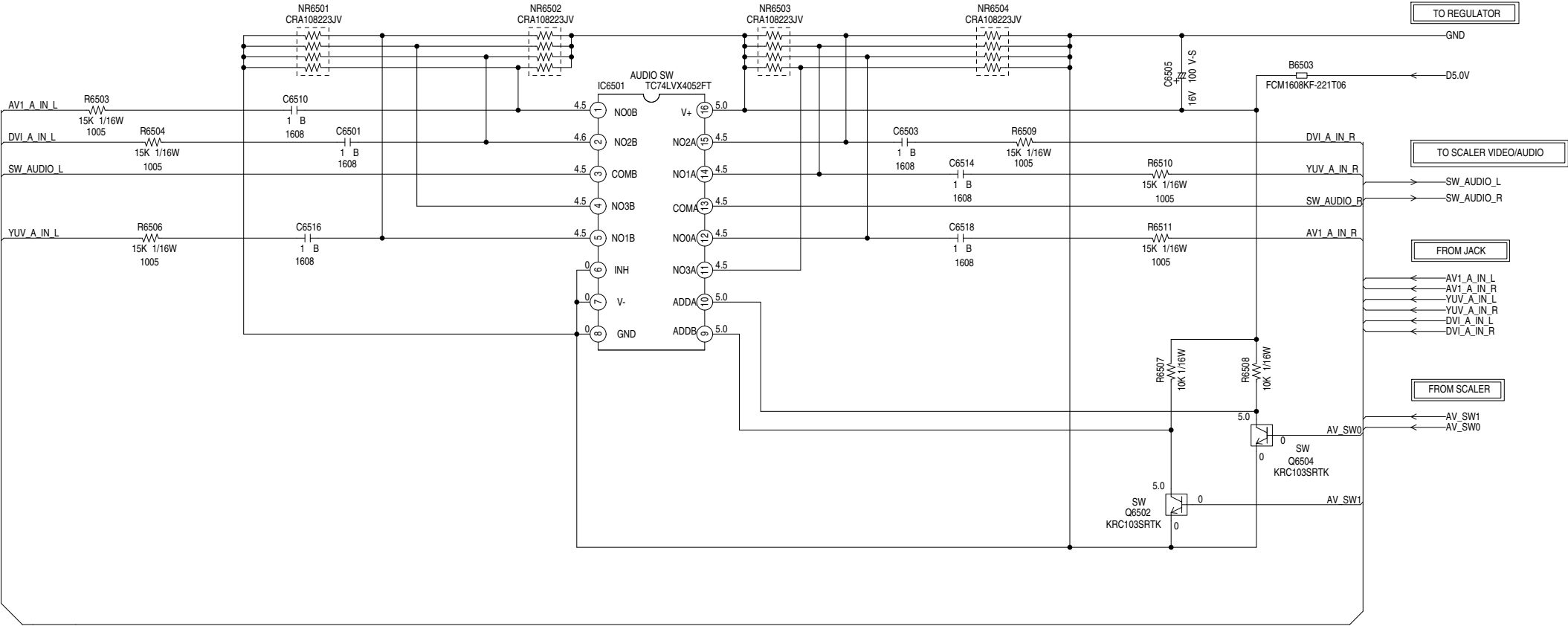
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR



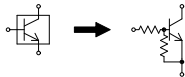
AV SWITCH SCHEMATIC DIAGRAM
(DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

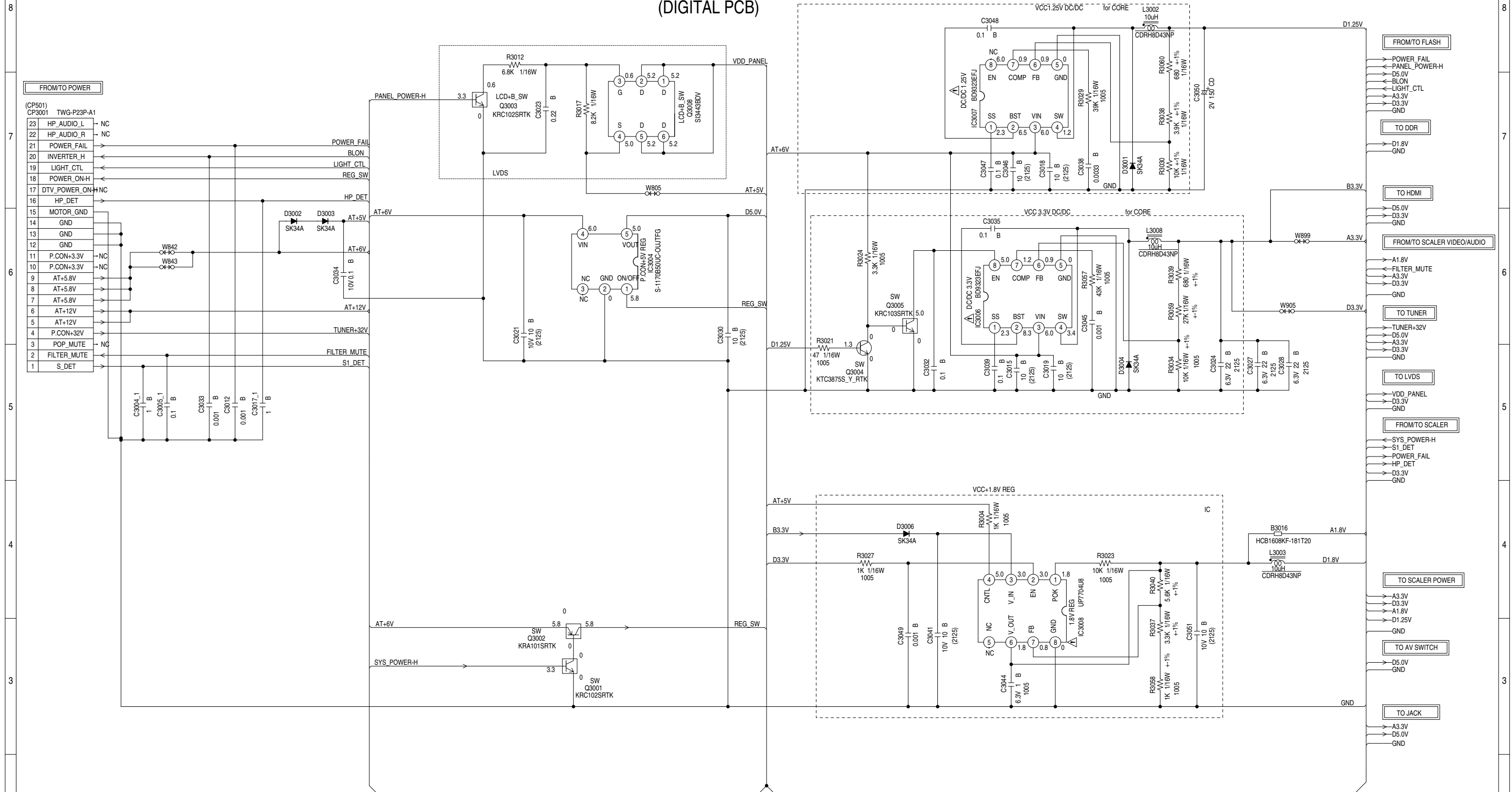
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR



PCBDH0
CEH432

REGULATOR SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

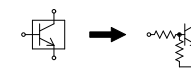
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

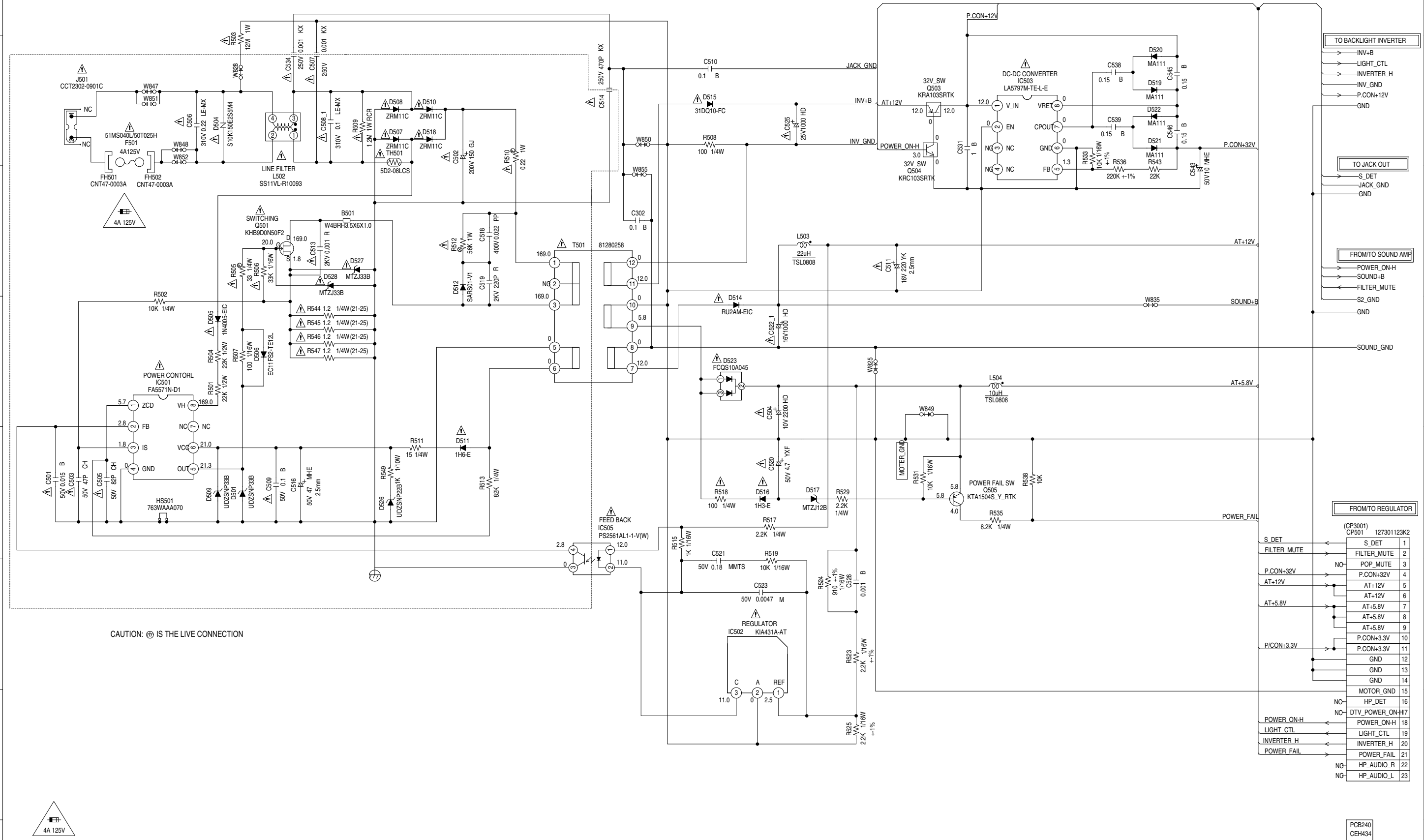
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR



POWER SCHEMATIC DIAGRAM
(POWER PCB)



CAUTION: ⚡ IS THE LIVE CONNECTION

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE 4A 125V (F501)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE
N'UTILISER QUE DES FUSIBLE DE MEME TYPE 4A 125V (F501)

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ⚡ ARE
CRITICAL FOR SAFETY, USE ONES
DESCRIBED IN PARTS LIST ONLY.

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR.
THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP
IS NON POLAR ONE.

ATTENTION: LES PIECES REPARÉES PAR UN ⚡ ETANT
DANGEREUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES

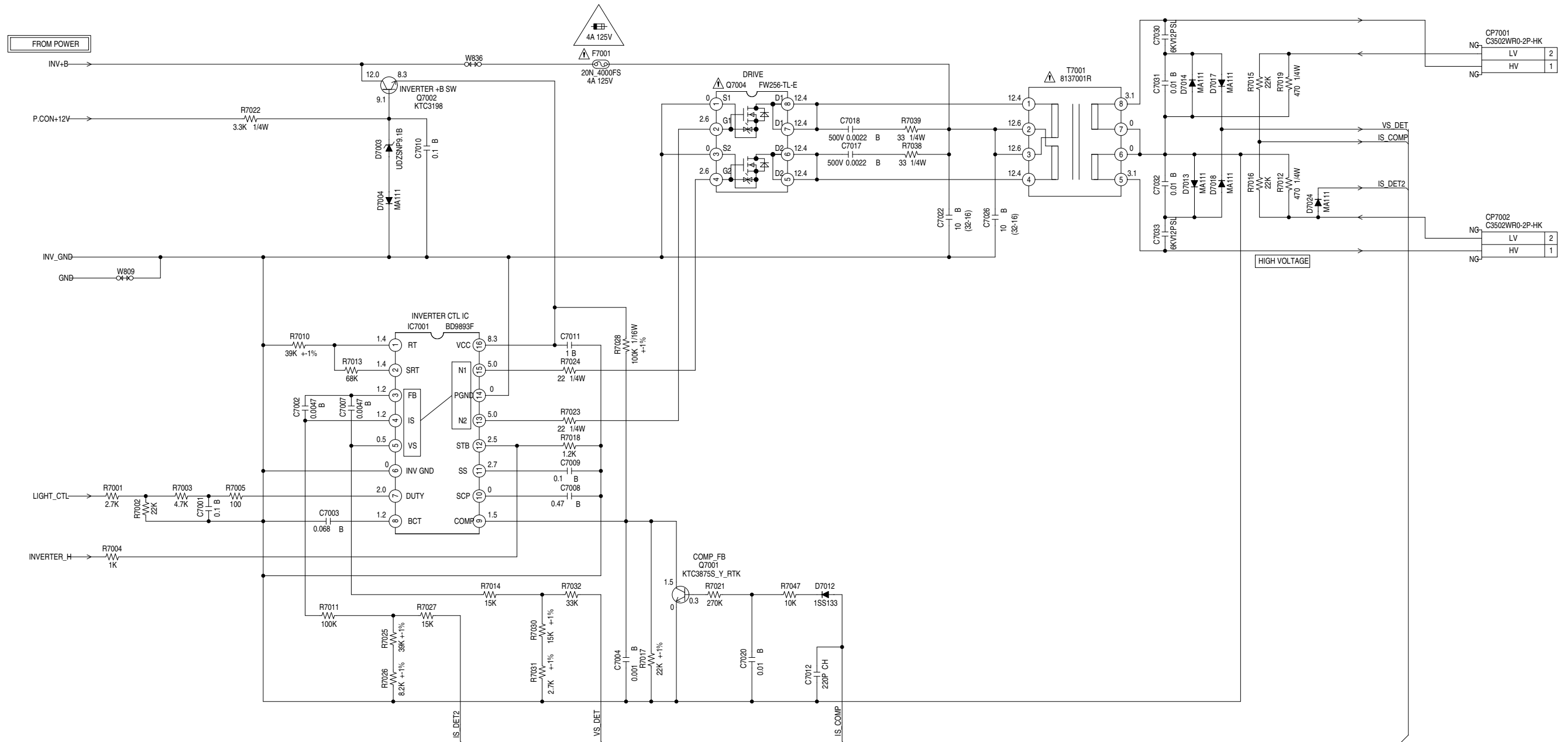
CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR

FROM/TO REGULATOR	
S_DET	CP3001
FILTER_MUTE	CP501
P.CON+32V	127301123K2
AT+12V	
AT+5.8V	
P.CON+3.3V	
GND	
GND	
MOTOR_GND	
HP_DET	
DTV_POWER_ON	
POWER_ON-H	
LIGHT_CTL	
INVERTER_H	
POWER_FAIL	
HP_AUDIO_R	
HP_AUDIO_L	

BACKLIGHT INVERTER SCHEMATIC DIAGRAM

(POWER PCB)



CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE 4A 125V (F7001)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE
UTILISER QUE DES FUSIBLE DE MEME TYPE 4A 125V (F7001)

CAUTION: F7001 IS MANUFACTURED BY SKYGATE CO., LTD., TYPE 20N.

NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

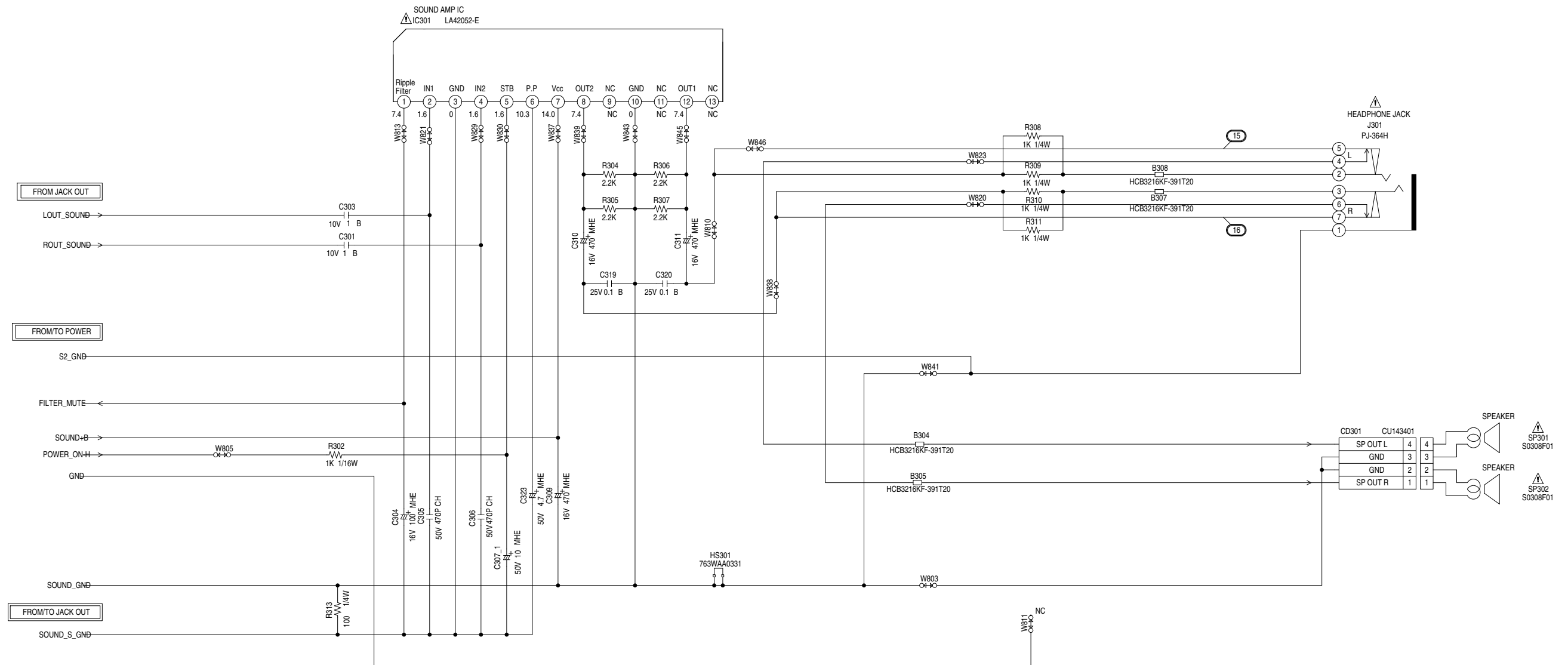
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

PCB240
CEH434


SOUND AMP SCHEMATIC DIAGRAM (POWER PCB)



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

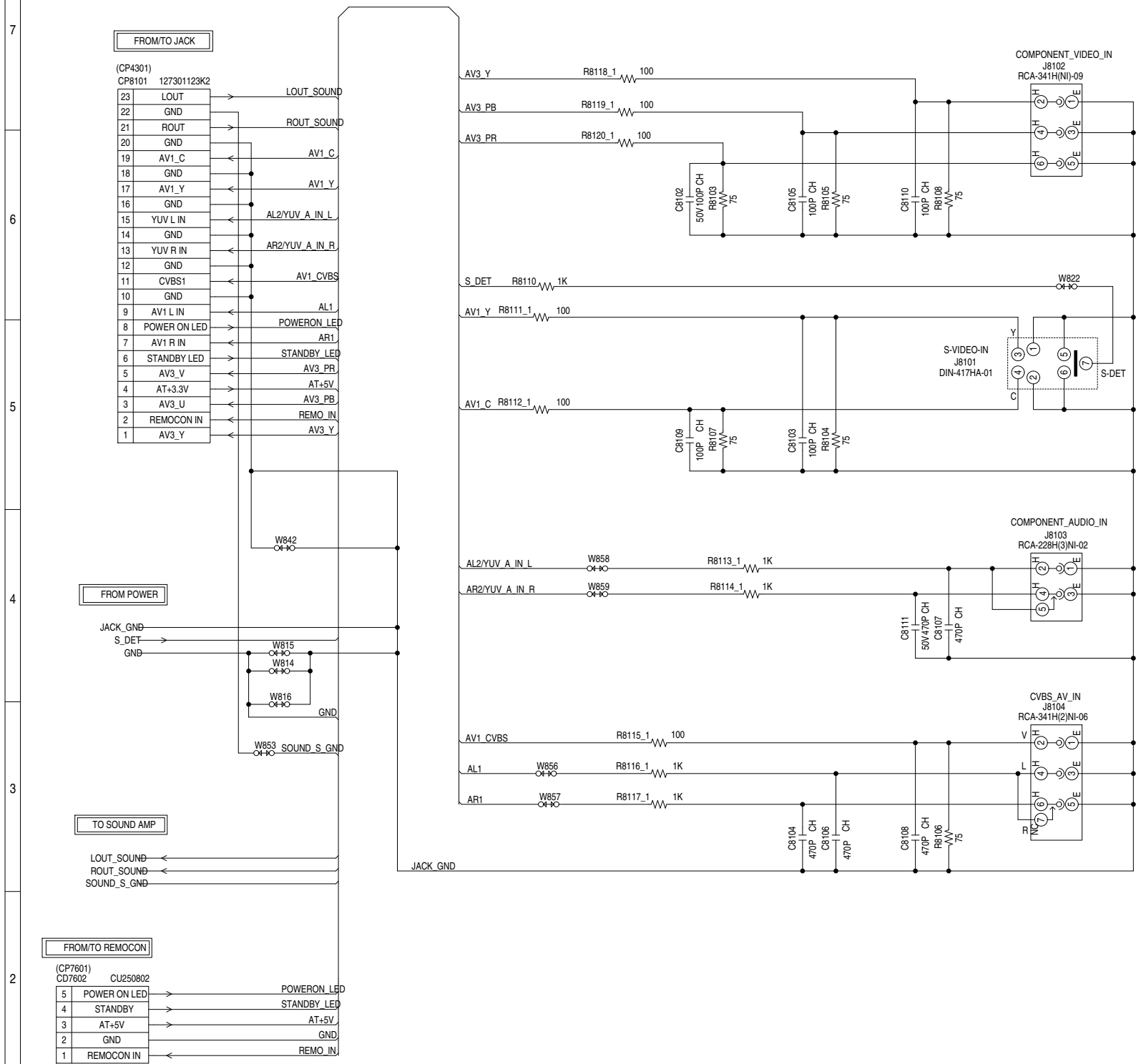
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

ATTENTION LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

PCB240
CEH434

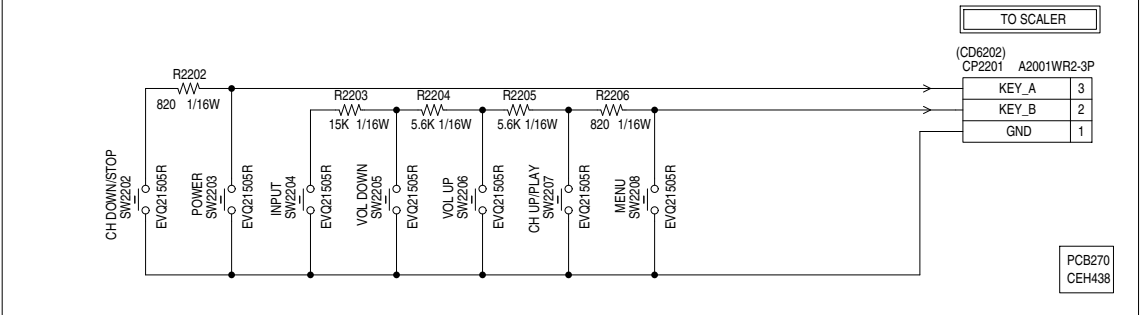
JACK OUT SCHEMATIC DIAGRAM

(POWER PCB)

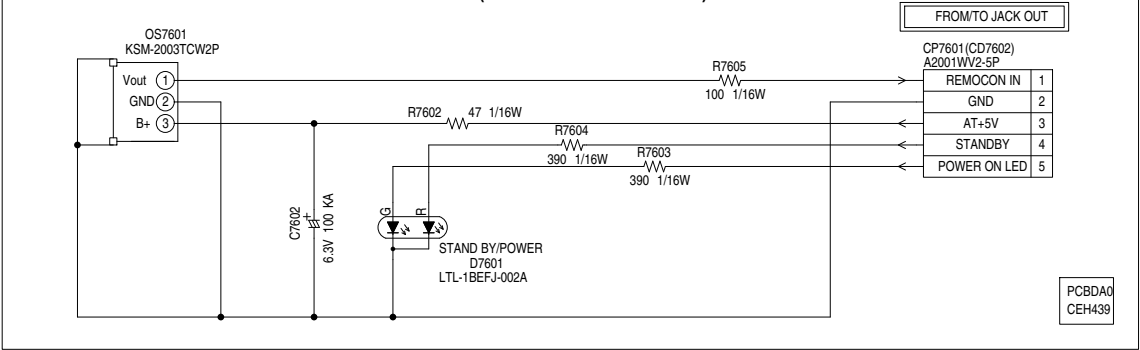


NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

(OPERATION PCB)

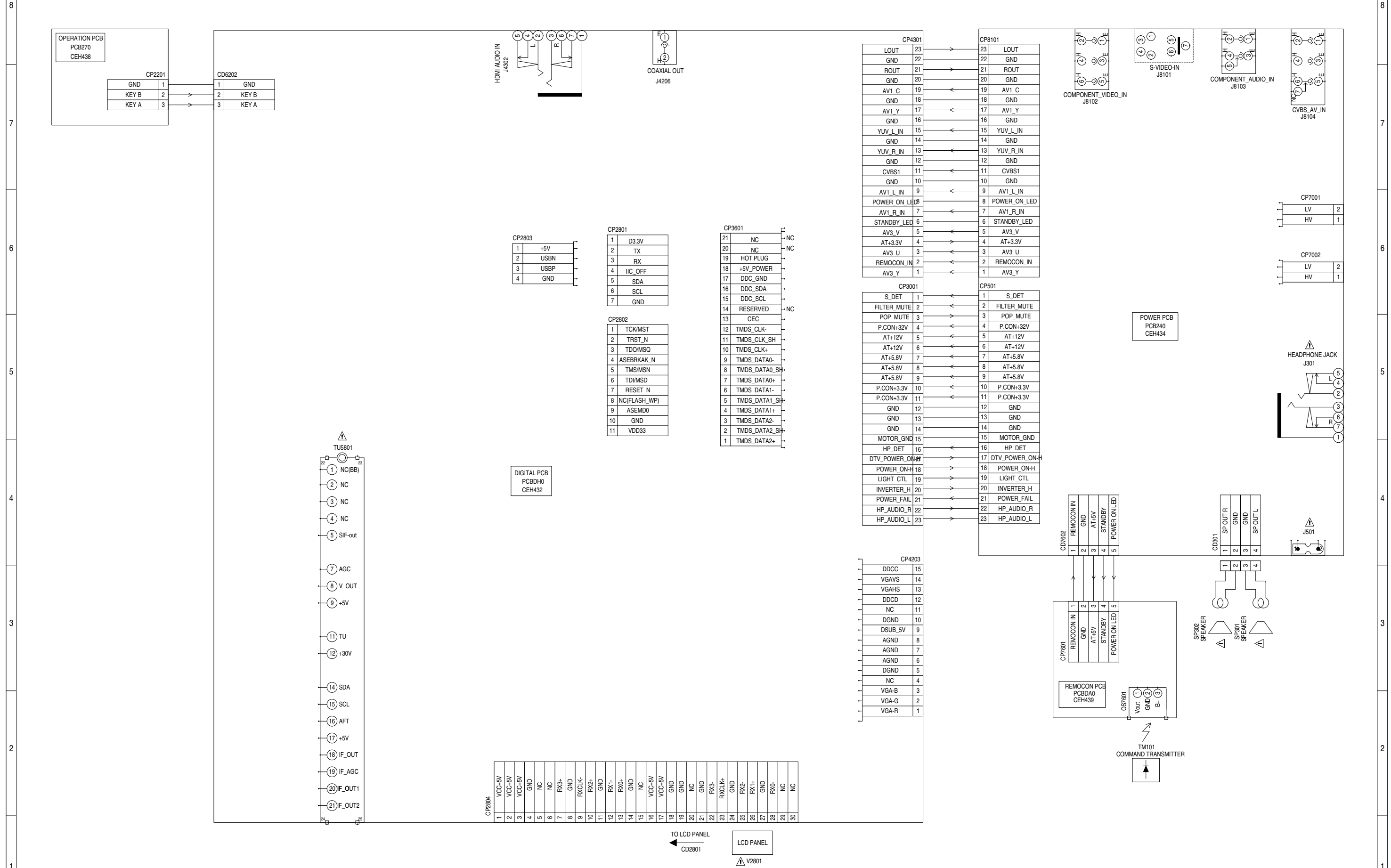


(REMOCON PCB)



NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

INTERCONNECTION DIAGRAM



NOTE: THIS INTERCONNECTION DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

ATTENTION LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLES DECRITES DANS LA NOMENCLATURE DES PIECES

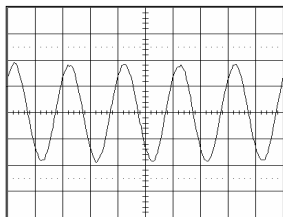
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

WAVEFORMS

FLASH

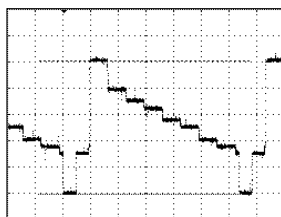
20ns
200mV

1



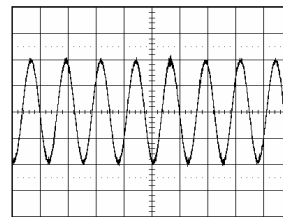
10us
200mV

7



2ms
100mV

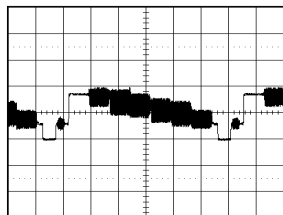
13



TUNER

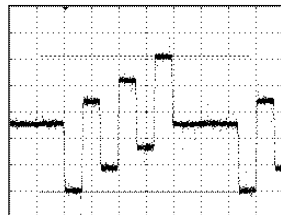
10us
0.5V

2



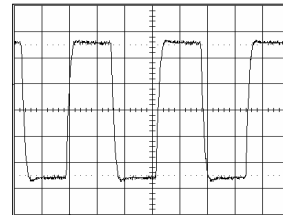
10us
100mV

8



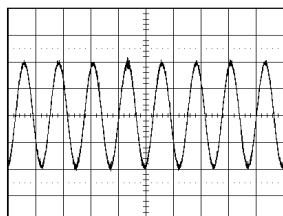
0.2us
200mV

14



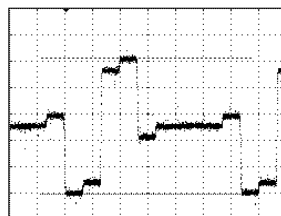
2ms
100mV

3



10us
100mV

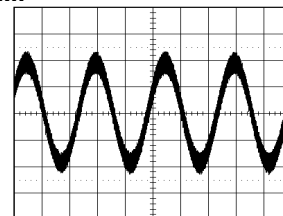
9



SOUND AMP

1ms
200mV

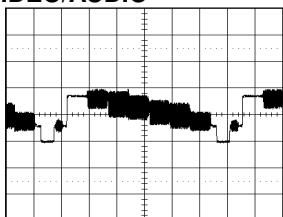
15



SCALER VIDEO/AUDIO

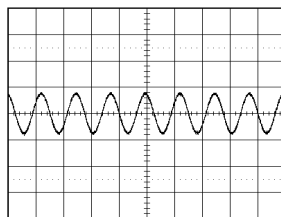
10us
0.5V

4



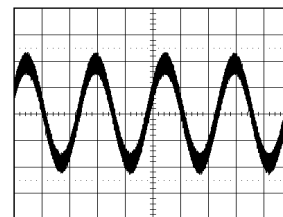
2ms
100mV

10



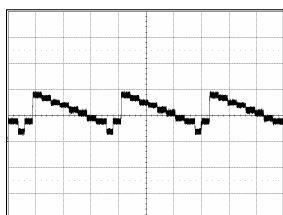
1ms
200mV

16



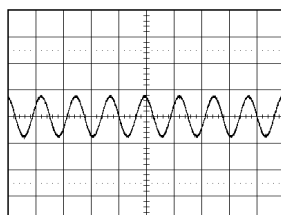
20us
500mV

5



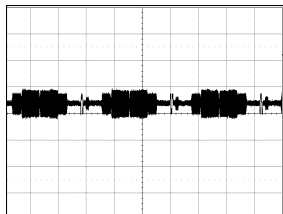
2ms
100mV

11



20us
500mV

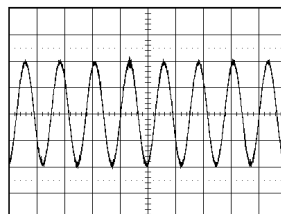
6



JACK

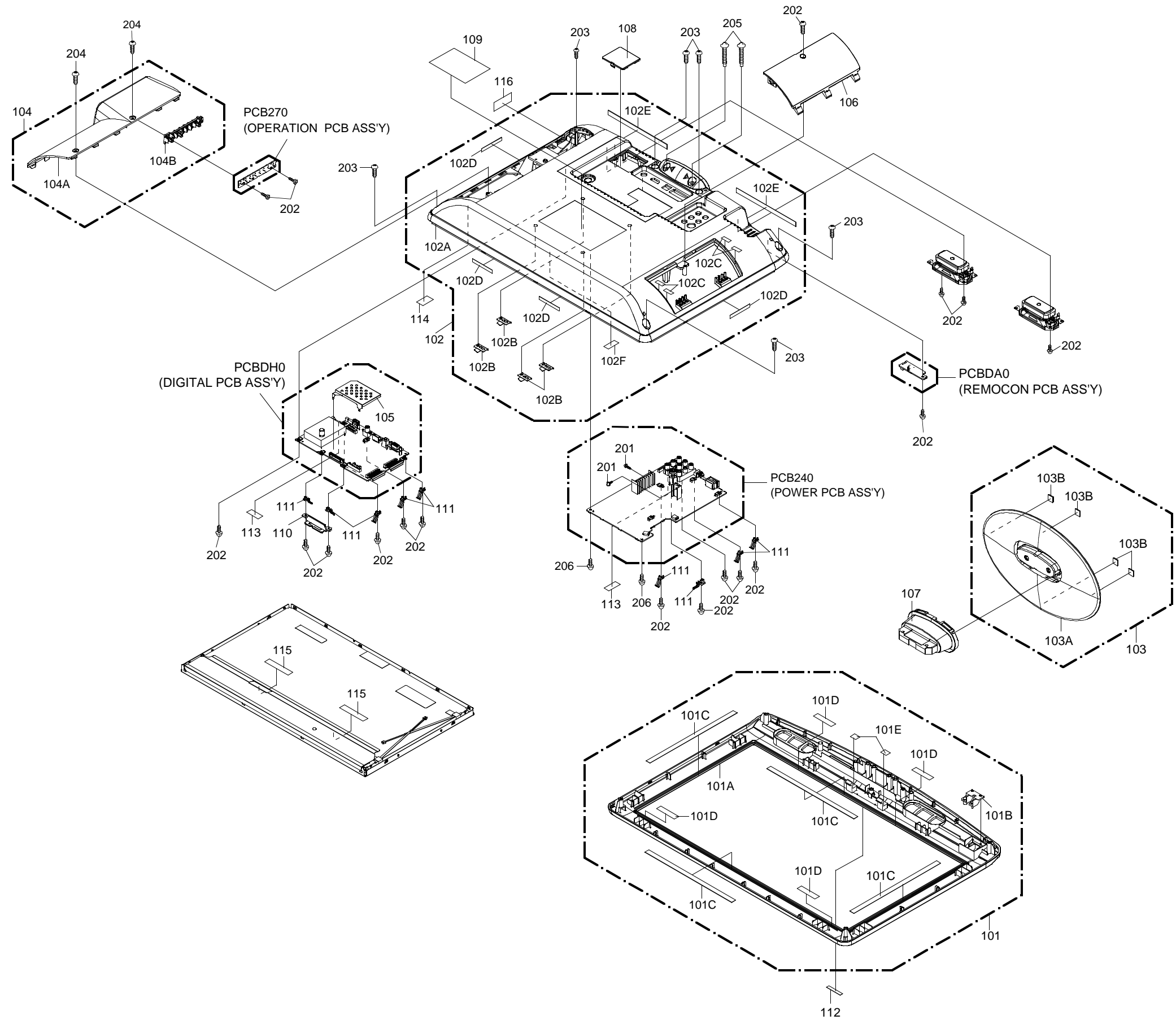
2ms
100mV

12

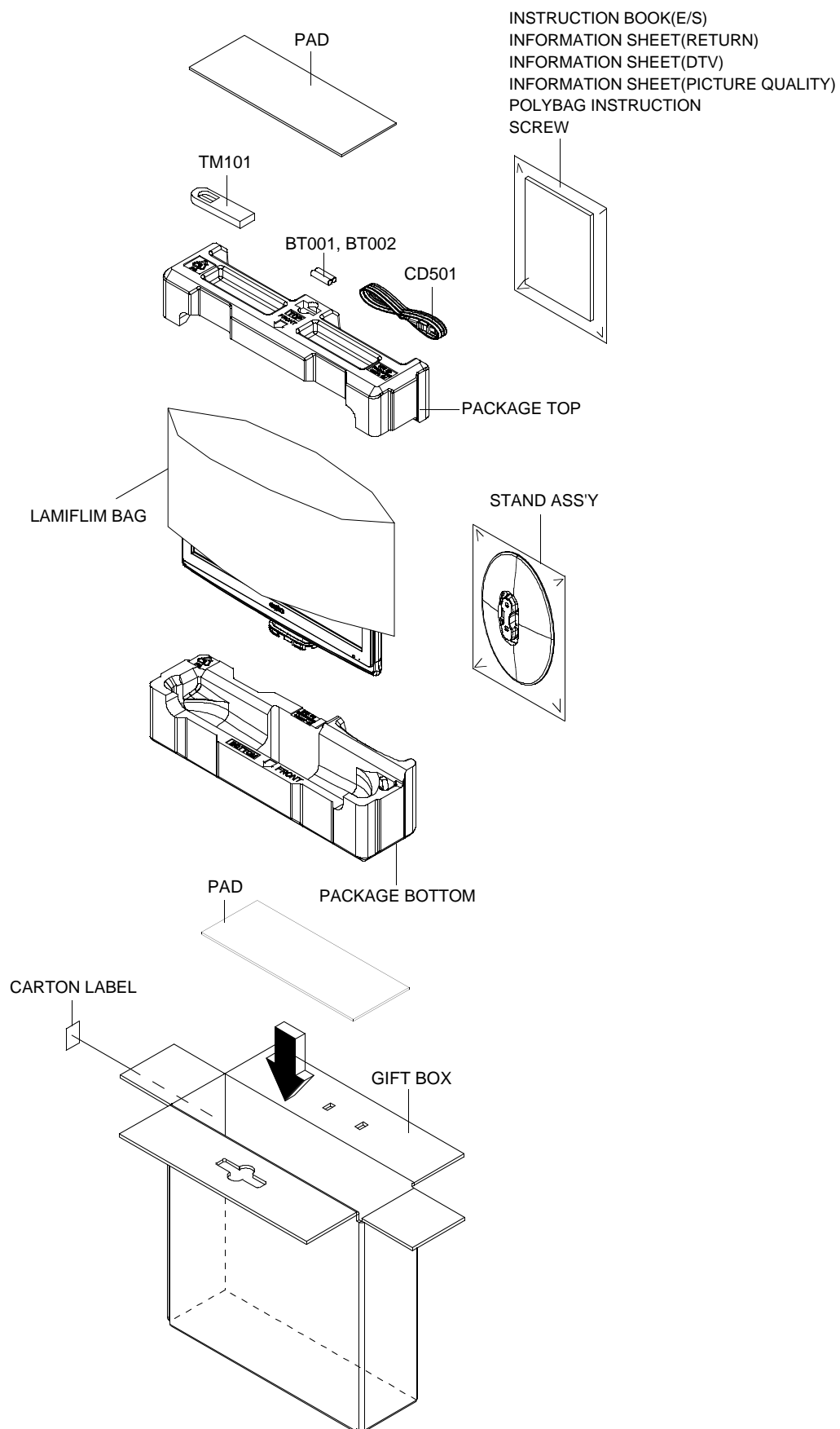


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW (PACKING DIAGRAM)



MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
101	7A701B283A	FRONT CABI ASS'Y	
101A	701WPBA106	CABINET FRONT	
101B	713WPA0434	GLASS LED	
101C	800WQ00181	FELT SHEET	
101D	800WQ0A157	FELT SHEET	
101E	800WQ00120	FELT SHEET	
102	7A702A835B	BACK CABI ASS'Y	or
	7A702A871A	BACK CABI ASS'Y	
102A	702WPAB447	CABINET BACK	
102B	761WSA0709	ANGLE BACK	
102C	800WQ00119	FELT SHEET	
102D	800WQ00182	FELT SHEET	
102E	800WQ00183	FELT SHEET	
102F	800WQ0A060	FELT SHEET	
103	7A704A184A	STAND ASS'Y	
103A	704WPBA110	STAND	or
	704WPBA111	STAND	
103B	800WRA0009	CUSHION LEG	
104	7A7110059A	PANEL SIDE ASS'Y	
104A	711WPD0773	PANEL SIDE	
104B	735WPA0970	BUTTON FRAME	
105	752WSA0737	SHIELD DIGITAL	
106	702WPA1438	COVER INVERTER	
107	704WPA0123	STAND FRAME	
108	706WPA0031	COVER CONNECTOR	
109	722529A010	SHEET RATING	
110	761WPA0554	HOLDER LVDS-3	
111	744WUA0038	SPRING EARTH-3	
112	723529A003	BADGE BRAND	1AV2BAAS023
113	800WFAA045	CUSHION	
114	800WQ0A100	FELT SHEET	
115	800WQ00120	FELT SHEET	
116	724WNAA041	SHEET PC	
201	8109I30A0U	SCREW TAP TITE(B)	WH7 3x10
202	8109230A0U	SCREW TAP TITE(B)	BIND 3x10
203	8109230A4U	SCREW TAP TITE(B)	BIND 3x14
204	8110K3080U	SCREW TAP TITE(P)	LAMI HEAD 3x8
205	8117140B5U	SCREW TAPPING(B0)	PAN 4x25
206	8109D30A0U	SCREW TAP TITE(B)	WH8 3x10
---	8905000001	SCREW	
---	723000E216	CARTON LABEL	
---	791WHA0173	FILM BAG	
---	791WHA0175	LAMIFILM BAG 650x550x0.5MM	
---	792WHAA304	PACKAGE TOP	
---	792WHAA305	PACKAGE BOTTOM	
---	793WCDE012	GIFT BOX	
---	795WCA0733	PAD	
---	J37I0521A	INSTRUCTION BOOK(E/S)	
---	J37I0529A	INFORMATION SHEET(RETURN)	
---	J37I0549A	INFORMATION SHEET(DTV)	
---	J37I0559A	INFORMATION SHEET(PICTURE QUALITY)	
---	JA5K0000	POLYBAG,INSTRUCTION	

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R302	R803R9102J	RC 1K OHM 1/16W	R2846	R808R9102F	RC 1K OHM 1/16W
R304	R803R9222J	RC 2.2K OHM 1/16W	R2847	R808R9562F	RC 5.6K OHM 1/16W
R305	R803R9222J	RC 2.2K OHM 1/16W	R2848	R808R9220J	RC 22 OHM 1/16W
R306	R803R9222J	RC 2.2K OHM 1/16W	R2849	R808R9103J	RC 10K OHM 1/16W
R307	R803R9222J	RC 2.2K OHM 1/16W	R2850	R808R9220J	RC 22 OHM 1/16W
R308	R002T4102J	RC 1K OHM 1/4W	R2851	R808R9103J	RC 10K OHM 1/16W
R309	R002T4102J	RC 1K OHM 1/4W	R2856	R808R9682F	RC 6.8K OHM 1/16W
R310	R002T4102J	RC 1K OHM 1/4W	R2857	R808R9221J	RC 220 OHM 1/16W
R311	R002T4102J	RC 1K OHM 1/4W	R2858	R808R9221J	RC 220 OHM 1/16W
R313	R002T4101J	RC 100 OHM 1/4W	R2861	R808R9102J	RC 1K OHM 1/16W
R501	R002T2223J	RC 22K OHM 1/2W	R2862	R808R9153J	RC 15K OHM 1/16W
R502	R002T4103J	RC 10K OHM 1/4W	R2863	R808R9472J	RC 4.7K OHM 1/16W
△ R503	RC31X1126J	RC 12M OHM 1W	R2866	R808R9472J	RC 4.7K OHM 1/16W
R504	R002T2223J	RC 22K OHM 1/2W	R2867	R808R9472J	RC 4.7K OHM 1/16W
△ R505	R63884330J	R,FUSE 33 OHM 1/4W	R2868	R808R9103J	RC 10K OHM 1/16W
△ R506	R803R9333J	RC 33K OHM 1/16W	R2873	R808R9472J	RC 4.7K OHM 1/16W
R507	R803R9101J	RC 100 OHM 1/16W	R2874	R808R9472J	RC 4.7K OHM 1/16W
R508	R002T4101J	RC 100 OHM 1/4W	R2876	R808R9472J	RC 4.7K OHM 1/16W
△ R509	RC31X1125J	RC 1.2M OHM 1W	R2879	R808R9472J	RC 4.7K OHM 1/16W
△ R510	R63881R22J	R,FUSE 0.22 OHM 1W	R2882	R808R9472J	RC 4.7K OHM 1/16W
R511	R002T4150J	RC 15 OHM 1/4W	R2883	R808R9472J	RC 4.7K OHM 1/16W
△ R512	R3K781563J	R,METAL OXIDE 56K OHM 1W	R2894	R808R9220J	RC 22 OHM 1/16W
R513	R002T4823J	RC 82K OHM 1/4W	R2896	R808R9220J	RC 22 OHM 1/16W
R515	R803R9102J	RC 1K OHM 1/16W	R2901	R808R9103J	RC 10K OHM 1/16W
R517	R002T4222J	RC 2.2K OHM 1/4W	R2906	R808R9103J	RC 10K OHM 1/16W
△ R518	R002T4101J	RC 100 OHM 1/4W	R2915	R808R9472J	RC 4.7K OHM 1/16W
R519	R803R9103J	RC 10K OHM 1/16W	R2916	R808R9472J	RC 4.7K OHM 1/16W
R523	R803R9222F	RC 2.2K OHM 1/16W	R2917	R808R9332J	RC 3.3K OHM 1/16W
R524	R803R9911F	RC 910 OHM 1/16W	R2918	R808R9103J	RC 10K OHM 1/16W
R525	R803R9222F	RC 2.2K OHM 1/16W	R2919	R808R9103J	RC 10K OHM 1/16W
R529	R002T4222J	RC 2.2K OHM 1/4W	R2920	R808R9103J	RC 10K OHM 1/16W
R531	R803R9103J	RC 10K OHM 1/16W	R2927	R808R9153J	RC 15K OHM 1/16W
R533	R803R9103F	RC 10K OHM 1/16W	R3004	R808R9102J	RC 1K OHM 1/16W
R535	R002T4822J	RC 8.2K OHM 1/4W	R3012	R808R9682J	RC 6.8K OHM 1/16W
R536	R803R9224F	RC 220K OHM 1/16W	R3017	R808R9822J	RC 8.2K OHM 1/16W
R538	R803R9103J	RC 10K OHM 1/16W	R3021	R808R9470J	RC 47 OHM 1/16W
R543	R803R9223J	RC 22K OHM 1/16W	R3023	R808R9103J	RC 10K OHM 1/16W
△ R544	R861R41R2F	RC 1.2 OHM 1/4W	R3024	R808R9332J	RC 3.3K OHM 1/16W
△ R545	R861R41R2F	RC 1.2 OHM 1/4W	R3027	R808R9102J	RC 1K OHM 1/16W
△ R546	R861R41R2F	RC 1.2 OHM 1/4W	R3029	R808R9393J	RC 39K OHM 1/16W
△ R547	R861R41R2F	RC 1.2 OHM 1/4W	R3030	R808R9103F	RC 10K OHM 1/16W
R549	R803R7102J	RC 1K OHM 1/10W	R3034	R808R9103F	RC 10K OHM 1/16W
R2202	R803R9821J	RC 820 OHM 1/16W	R3037	R808R9332F	RC 3.3K OHM 1/16W
R2203	R803R9153J	RC 15K OHM 1/16W	R3038	R808R9392F	RC 3.9K OHM 1/16W
R2204	R803R9562J	RC 5.6K OHM 1/16W	R3039	R808R9681F	RC 680 OHM 1/16W
R2205	R803R9562J	RC 5.6K OHM 1/16W	R3040	R808R9562F	RC 5.6K OHM 1/16W
R2206	R803R9821J	RC 820 OHM 1/16W	R3057	R808R9433J	RC 43K OHM 1/16W
R2802	R808R9103J	RC 10K OHM 1/16W	R3058	R808R9102F	RC 1K OHM 1/16W
R2803	R808R9103J	RC 10K OHM 1/16W	R3059	R808R9273F	RC 27K OHM 1/16W
R2804	R808R9103J	RC 10K OHM 1/16W	R3060	R808R9681F	RC 680 OHM 1/16W
R2805	R808R9103J	RC 10K OHM 1/16W	R3431	R808R9471J	RC 470 OHM 1/16W
R2807	R808R9472J	RC 4.7K OHM 1/16W	R3602	R808R9103J	RC 10K OHM 1/16W
R2808	R808R9182J	RC 1.8K OHM 1/16W	R3604	R808R9100J	RC 10 OHM 1/16W
R2809	R808R9181F	RC 180 OHM 1/16W	R3605	R808R9103J	RC 10K OHM 1/16W
R2812	R808R9472J	RC 4.7K OHM 1/16W	R3607	R808R9101J	RC 100 OHM 1/16W
R2813	R808R9472J	RC 4.7K OHM 1/16W	R3608	R808R9101J	RC 100 OHM 1/16W
R2815	R808R9220J	RC 22 OHM 1/16W	R3609	R808R9103J	RC 10K OHM 1/16W
R2816	R808R9220J	RC 22 OHM 1/16W	R3611	R808R9102J	RC 1K OHM 1/16W
R2817	R808R9220J	RC 22 OHM 1/16W	R3612	R808R9103J	RC 10K OHM 1/16W
R2818	R808R9220J	RC 22 OHM 1/16W	R3613	R808R9103J	RC 10K OHM 1/16W
R2819	R808R9220J	RC 22 OHM 1/16W	R3614	R808R9223J	RC 22K OHM 1/16W
R2820	R808R9105J	RC 1M OHM 1/16W	R3615	R808R9473J	RC 47K OHM 1/16W
R2828	R808R9472J	RC 4.7K OHM 1/16W	R3616	R808R9103J	RC 10K OHM 1/16W
R2829	R808R9102F	RC 1K OHM 1/16W	R3617	R808R9473J	RC 47K OHM 1/16W
R2830	R808R9102F	RC 1K OHM 1/16W	R3618	R808R9103J	RC 10K OHM 1/16W
R2831	R808R9121J	RC 120 OHM 1/16W	R3625	R808R9472J	RC 4.7K OHM 1/16W
R2832	R808R9330J	RC 33 OHM 1/16W	R3638	R808R9103J	RC 10K OHM 1/16W
R2835	R808R9472J	RC 4.7K OHM 1/16W	R3641	R808R9472J	RC 4.7K OHM 1/16W
R2836	R808R9103J	RC 10K OHM 1/16W	R3642	R808R9472J	RC 4.7K OHM 1/16W
R2837	R808R9103J	RC 10K OHM 1/16W	R3643	R808R9332J	RC 3.3K OHM 1/16W
R2838	R808R9472J	RC 4.7K OHM 1/16W	R3644	R808R9332J	RC 3.3K OHM 1/16W
R2839	R808R9472J	RC 4.7K OHM 1/16W	R3651	R808R9302J	RC 3K OHM 1/16W
R2841	R808R9330J	RC 33 OHM 1/16W	R3652	R808R9752J	RC 7.5K OHM 1/16W
R2842	R808R947J	RC 4.7 OHM 1/16W	R3653	R808R9682F	RC 6.8K OHM 1/16W
R2843	R808R947J	RC 4.7 OHM 1/16W	R3654	R808R9561J	RC 560 OHM 1/16W
R2844	R808R9820F	RC 82 OHM 1/16W	R3657	R808R9103J	RC 10K OHM 1/16W
R2845	R808R9102F	RC 1K OHM 1/16W	R4235	R808R9222J	RC 2.2K OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
RESISTORS				RESISTORS			
R4238	R808R9101J	RC	100 OHM 1/16W	R8106	R803R9750J	RC	75 OHM 1/16W
R4245	R808R9152J	RC	1.5K OHM 1/16W	R8107	R803R9750J	RC	75 OHM 1/16W
R4246	R808R9332J	RC	3.3K OHM 1/16W	R8108	R803R9750J	RC	75 OHM 1/16W
R4247	R808R9101J	RC	100 OHM 1/16W	R8110	R803R9102J	RC	1K OHM 1/16W
R4249	R808R9221J	RC	220 OHM 1/16W	R8111	R803R9101J	RC	100 OHM 1/16W
R4250	R808R9101J	RC	100 OHM 1/16W	R8112	R803R9101J	RC	100 OHM 1/16W
R4251	R808R9680J	RC	68 OHM 1/16W	R8113	R803R9102J	RC	1K OHM 1/16W
R4252	R808R9332J	RC	3.3K OHM 1/16W	R8114	R803R9102J	RC	1K OHM 1/16W
R4254	R808R9332J	RC	3.3K OHM 1/16W	R8115	R803R9101J	RC	100 OHM 1/16W
R4257	R808R9104J	RC	100K OHM 1/16W	R8116	R803R9102J	RC	1K OHM 1/16W
R4258	R808R9222J	RC	2.2K OHM 1/16W	R8117	R803R9102J	RC	1K OHM 1/16W
R4261	R808R9750J	RC	75 OHM 1/16W	R8118	R803R9101J	RC	100 OHM 1/16W
R4262	R808R9222J	RC	2.2K OHM 1/16W	R8119	R803R9101J	RC	100 OHM 1/16W
R4263	R808R9750J	RC	75 OHM 1/16W	R8120	R803R9101J	RC	100 OHM 1/16W
R4265	R808R9750J	RC	75 OHM 1/16W	CAPACITORS			
R4316	R808R9102J	RC	1K OHM 1/16W	C301	CS0PB0N16K	CC	1 UF 10V B
R4317	R808R9102J	RC	1K OHM 1/16W	C302	CS0PB0415K	CC	0.1 UF 50V B
R4318	R808R9563J	RC	56K OHM 1/16W	C303	CS0PB0N16K	CC	1 UF 10V B
R4319	R808R9563J	RC	56K OHM 1/16W	C304	E7ESU2101M	CE	100 UF 16V
R5803	R808R9154J	RC	150K OHM 1/16W	C305	CS0PCH4Q2J	CC	470 PF 50V CH
R5804	R808R9473J	RC	47K OHM 1/16W	C306	CS0PCH4Q2J	CC	470 PF 50V CH
R5805	R808R9104J	RC	100K OHM 1/16W	C307	E7ESU5100M	CE	10 UF 50V
R5806	R808R9101J	RC	100 OHM 1/16W	C309	E7EST2471M	CE	470 UF 16V
R5807	R808R9101J	RC	100 OHM 1/16W	C310	E7EST2471M	CE	470 UF 16V
R5808	R808R9101J	RC	100 OHM 1/16W	C311	E7EST2471M	CE	470 UF 16V
R5809	R808R9101J	RC	100 OHM 1/16W	C319	CS0PB0315K	CC	0.1 UF 25V B
R5814	R808R9332J	RC	3.3K OHM 1/16W	C320	CS0PB0315K	CC	0.1 UF 25V B
R5815	R808R9332J	RC	3.3K OHM 1/16W	C323	E7ESU54R7M	CE	4.7 UF 50V
R5816	R808R9102J	RC	1K OHM 1/16W	△ C501	CS0PB04E4K	CC	0.015 UF 50V B
R5817	R808R9101J	RC	100 OHM 1/16W	△ C502	E83FHC151D	CE	150 UF 200V
R5824	R808R9102J	RC	1K OHM 1/16W	△ C503	CS0PCH4Q1J	CC	47 PF 50V CH
R6207	R808R9103J	RC	10K OHM 1/16W	△ C504	E83YF1222D	CE	2200 UF 10V
R6208	R808R9472J	RC	4.7K OHM 1/16W	△ C505	CS0PCH4W1J	CC	82 PF 50V CH
R6503	R808R9153J	RC	15K OHM 1/16W	△ C506	P4K12D224K	CMPP	0.22 UF 310V
R6504	R808R9153J	RC	15K OHM 1/16W	△ C507	CD39E0M13M	CC	0.001 UF 250V
R6506	R808R9153J	RC	15K OHM 1/16W	△ C508	P4K12D104K	CMPP	0.1 UF 310V
R6507	R808R9103J	RC	10K OHM 1/16W	△ C509	CS0PB0415K	CC	0.1 UF 50V B
R6508	R808R9103J	RC	10K OHM 1/16W	C510	CRGTB0415K	CC	0.1 UF 50V B
R6509	R808R9153J	RC	15K OHM 1/16W	△ C511	E7EPU2221M	CE	220 UF 16V
R6510	R808R9153J	RC	15K OHM 1/16W	△ C513	C0PLRR713K	CC	0.001 UF 2KV R
R6511	R808R9153J	RC	15K OHM 1/16W	△ C514	CD39B0MQ2K	CC	470 PF 250V
R7001	R803R9272J	RC	2.7K OHM 1/16W	C516	E7ESU5470M	CE	47 UF 50V
R7002	R803R9223J	RC	22K OHM 1/16W	C518	P332E4223J	CPP	0.022 UF 400V
R7003	R803R9472J	RC	4.7K OHM 1/16W	C519	C03L0R7H2K	CC	220 PF 2KV R
R7004	R803R9102J	RC	1K OHM 1/16W	△ C520	E8E2U54R7D	CE	4.7 UF 50V
R7005	R803R9101J	RC	100 OHM 1/16W	C521	P232W0184J	CMPL	0.18 UF 50V MMTS
R7010	R803R9393F	RC	39K OHM 1/16W	△ C522	E83YF2102D	CE	1000 UF 16V
R7011	R002T4104J	RC	100K OHM 1/4W	C523	P1S3T0472J	CP	0.0047UF 50V
R7012	R002T4471J	RC	470 OHM 1/4W	△ C525	E83YF3102D	CE	1000 UF 25V
R7013	R803R9683J	RC	68K OHM 1/16W	C526	CS0PB0413K	CC	0.001 UF 50V B
R7014	R002T4153J	RC	15K OHM 1/4W	C531	CS0PB0316K	CC	1 UF 25V B
R7015	R803R9223J	RC	22K OHM 1/16W	△ C534	CD39E0M13M	CC	0.001 UF 250V
R7016	R803R9223J	RC	22K OHM 1/16W	C538	CS0PB03E5K	CC	0.15 UF 25V B
R7017	R803R9223F	RC	22K OHM 1/16W	C539	CS0PB03E5K	CC	0.15 UF 25V B
R7018	R803R9122J	RC	1.2K OHM 1/16W	C543	E7ESU5100M	CE	10 UF 50V
R7019	R002T4471J	RC	470 OHM 1/4W	C545	CS0PB02E5K	CC	0.15 UF 16V B
R7021	R803R9274J	RC	270K OHM 1/16W	C546	CS0PB02E5K	CC	0.15 UF 16V B
R7022	R002T4332J	RC	3.3K OHM 1/4W	C2801	CS0UB0N15K	CC	0.1 UF 10V B
R7023	R002T4220J	RC	22 OHM 1/4W	C2805	CS0UB0214K	CC	0.01 UF 16V B
R7024	R002T4220J	RC	22 OHM 1/4W	C2807	CS0UCH4H1J	CC	22 PF 50V CH
R7025	R803R9393F	RC	39K OHM 1/16W	C2808	CS0UCH4H1J	CC	22 PF 50V CH
R7026	R803R9822F	RC	8.2K OHM 1/16W	C2809	CS0UB0N15K	CC	0.1 UF 10V B
R7027	R803R9153J	RC	15K OHM 1/16W	C2810	CS0UB0N15K	CC	0.1 UF 10V B
R7028	R803R9104F	RC	100K OHM 1/16W	C2811	CS0RB0N17K	CC	10 UF 10V B
R7030	R803R9153F	RC	15K OHM 1/16W	C2812	CS0UB0N15K	CC	0.1 UF 10V B
R7031	R803R9272F	RC	2.7K OHM 1/16W	C2813	CS0UB0N15K	CC	0.1 UF 10V B
R7032	R803R9333J	RC	33K OHM 1/16W	C2814	CS0UB0N15K	CC	0.1 UF 10V B
R7038	R002T4330J	RC	33 OHM 1/4W	C2815	CS0UB0N15K	CC	0.1 UF 10V B
R7039	R002T4330J	RC	33 OHM 1/4W	C2816	CS0UB0N15K	CC	0.1 UF 10V B
R7047	R803R9103J	RC	10K OHM 1/16W	C2817	CS0UB0N15K	CC	0.1 UF 10V B
R7602	R803R9470J	RC	47 OHM 1/16W	C2818	CS0UB0N15K	CC	0.1 UF 10V B
R7603	R803R9391J	RC	390 OHM 1/16W	C2819	CS0UB0N15K	CC	0.1 UF 10V B
R7604	R803R9391J	RC	390 OHM 1/16W	C2820	CS0UB0N15K	CC	0.1 UF 10V B
R7605	R803R9101J	RC	100 OHM 1/16W	C2821	CS0UB0N15K	CC	0.1 UF 10V B
R8103	R803R9750J	RC	75 OHM 1/16W	C2822	CS0UB0N15K	CC	0.1 UF 10V B
R8104	R803R9750J	RC	75 OHM 1/16W	C2823	CS0UB0N15K	CC	0.1 UF 10V B
R8105	R803R9750J	RC	75 OHM 1/16W	C2824	CS0UB0N15K	CC	0.1 UF 10V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION			REF. NO.	PART NO.	DESCRIPTION		
CAPACITORS					CAPACITORS				
C2825	CS0UB0N15K	CC	0.1	UF 10V B	C2927	CS0RB0N17K	CC	10	UF 10V B
C2826	CS0UB0N15K	CC	0.1	UF 10V B	C2928	CS0RB0N17K	CC	10	UF 10V B
C2827	CS0UB0N15K	CC	0.1	UF 10V B	C2929	CS0RB0N17K	CC	10	UF 10V B
C2828	CS0UB0N15K	CC	0.1	UF 10V B	C2930	E61UMQ331D	CE	330	UF 4V
C2829	CS0UB0N15K	CC	0.1	UF 10V B	C2932	CS0UB0N15K	CC	0.1	UF 10V B
C2830	CS0UB0N15K	CC	0.1	UF 10V B	C2933	CS0UB0N15K	CC	0.1	UF 10V B
C2831	CS0UB0N15K	CC	0.1	UF 10V B	C2934	CS0UB0N15K	CC	0.1	UF 10V B
C2832	CS0UB0N15K	CC	0.1	UF 10V B	C2936	CS0UB0N15K	CC	0.1	UF 10V B
C2833	CS0UB0N15K	CC	0.1	UF 10V B	C2937	CS0UB0N15K	CC	0.1	UF 10V B
C2834	CS0UB0N15K	CC	0.1	UF 10V B	C2938	CS0UB0N15K	CC	0.1	UF 10V B
C2835	CS0UB0N15K	CC	0.1	UF 10V B	C2939	CS0UB0N15K	CC	0.1	UF 10V B
C2836	CS0UB0N15K	CC	0.1	UF 10V B	C2940	CS0UB0N15K	CC	0.1	UF 10V B
C2837	CS0UB0N15K	CC	0.1	UF 10V B	C2943	CS0UB0N15K	CC	0.1	UF 10V B
C2838	CS0UB0N15K	CC	0.1	UF 10V B	C2944	CS0UB0N15K	CC	0.1	UF 10V B
C2839	CS0UB0N15K	CC	0.1	UF 10V B	C2945	CS0UB0N15K	CC	0.1	UF 10V B
C2840	CS0UB0N15K	CC	0.1	UF 10V B	C2946	CS0PB0N16K	CC	1	UF 10V B
C2841	E61UM0331D	CE	330	UF 6.3V	C2948	CS0PB0N16K	CC	1	UF 10V B
C2842	E61UM1220D	CE	22	UF 10V	C2950	CS0UB0N15K	CC	0.1	UF 10V B
C2843	CS0RB0N17K	CC	10	UF 10V B	C2951	CS0RB0N17K	CC	10	UF 10V B
C2844	CS0UB0N15K	CC	0.1	UF 10V B	C2952	CS0UB0N15K	CC	0.1	UF 10V B
C2845	CS0UB0N15K	CC	0.1	UF 10V B	C2953	CS0UB0N15K	CC	0.1	UF 10V B
C2846	CS0UB0N15K	CC	0.1	UF 10V B	C2954	CS0UB0N15K	CC	0.1	UF 10V B
C2848	CS0UB0N15K	CC	0.1	UF 10V B	C2955	CS0UB0N15K	CC	0.1	UF 10V B
C2851	E61UM0331D	CE	330	UF 6.3V	C2956	CS0UB0N15K	CC	0.1	UF 10V B
C2854	CS0UB0N15K	CC	0.1	UF 10V B	C2957	CS0UB0N15K	CC	0.1	UF 10V B
C2855	E61UMQ331D	CE	330	UF 4V	C2958	CS0UB0N15K	CC	0.1	UF 10V B
C2856	CS0RB0N17K	CC	10	UF 10V B	C2959	E61UM1220D	CE	22	UF 10V
C2857	CS0UB0N15K	CC	0.1	UF 10V B	C2960	CS0UB0N15K	CC	0.1	UF 10V B
C2858	CS0UB0N15K	CC	0.1	UF 10V B	C2961	CS0UB0413K	CC	0.001	UF 50V B
C2859	CS0UB0N15K	CC	0.1	UF 10V B	C2962	CS0UB0413K	CC	0.001	UF 50V B
C2860	CS0RB0N17K	CC	10	UF 10V B	C2963	CS0UB0N15K	CC	0.1	UF 10V B
C2861	CS0RB0N17K	CC	10	UF 10V B	C2976	CS0UB0N15K	CC	0.1	UF 10V B
C2862	CS0RB0N17K	CC	10	UF 10V B	C2985	CS0RB0216K	CC	1	UF 16V B
C2863	CS0RB0N17K	CC	10	UF 10V B	C2986	E61UMQ331D	CE	330	UF 4V
C2864	CS0UB0N15K	CC	0.1	UF 10V B	C3004	CS0UB0P16K	CC	1	UF 6.3V B
C2865	CS0UB0N15K	CC	0.1	UF 10V B	C3005	CS0UB0N15K	CC	0.1	UF 10V B
C2866	CS0UB0N15K	CC	0.1	UF 10V B	C3012	CS0UB0413K	CC	0.001	UF 50V B
C2867	CS0UB0N15K	CC	0.1	UF 10V B	C3015	CS0RB0N17K	CC	10	UF 10V B
C2868	CS0UB0N15K	CC	0.1	UF 10V B	C3017	CS0UB0P16K	CC	1	UF 6.3V B
C2869	CS0UB0N15K	CC	0.1	UF 10V B	C3018	CS0RB0N17K	CC	10	UF 10V B
C2870	CS0UB0N15K	CC	0.1	UF 10V B	C3019	CS0RB0N17K	CC	10	UF 10V B
C2871	CS0UB0N15K	CC	0.1	UF 10V B	C3021	CS0RB0N17K	CC	10	UF 10V B
C2872	CS0UB0N15K	CC	0.1	UF 10V B	C3023	CS0UB0NH5K	CC	0.22	UF 10V B
C2873	CS0UB0N15K	CC	0.1	UF 10V B	C3024	CS0RB0PH7M	CC	22	UF 6.3V B
C2874	CS0UB0N15K	CC	0.1	UF 10V B	C3027	CS0RB0PH7M	CC	22	UF 6.3V B
C2875	CS0UB0N15K	CC	0.1	UF 10V B	C3028	CS0RB0PH7M	CC	22	UF 6.3V B
C2876	CS0UB0N15K	CC	0.1	UF 10V B	C3030	CS0RB0N17K	CC	10	UF 10V B
C2877	CS0UB0N15K	CC	0.1	UF 10V B	C3032	CS0UB0N15K	CC	0.1	UF 10V B
C2878	CS0UB0N15K	CC	0.1	UF 10V B	C3033	CS0UB0413K	CC	0.001	UF 50V B
C2879	CS0UB0N15K	CC	0.1	UF 10V B	C3034	CS0UB0N15K	CC	0.1	UF 10V B
C2880	CS0UB0N15K	CC	0.1	UF 10V B	C3035	CS0UB0N15K	CC	0.1	UF 10V B
C2881	CS0UB0N15K	CC	0.1	UF 10V B	C3038	CS0UB04L3K	CC	0.0033	UF 50V B
C2882	CS0UB0N15K	CC	0.1	UF 10V B	C3039	CS0UB0N15K	CC	0.1	UF 10V B
C2883	CS0UB0N15K	CC	0.1	UF 10V B	C3041	CS0RB0N17K	CC	10	UF 10V B
C2884	CS0UB0N15K	CC	0.1	UF 10V B	C3044	CS0UB0P16K	CC	1	UF 6.3V B
C2885	CS0UB0N15K	CC	0.1	UF 10V B	C3045	CS0UB0413K	CC	0.001	UF 50V B
C2889	CS0UB0N15K	CC	0.1	UF 10V B	C3046	CS0RB0N17K	CC	10	UF 10V B
C2891	CS0UB0N15K	CC	0.1	UF 10V B	C3047	CS0UB0N15K	CC	0.1	UF 10V B
C2902	CS0UB0N15K	CC	0.1	UF 10V B	C3048	CS0UB0N15K	CC	0.1	UF 10V B
C2903	CS0UB0N15K	CC	0.1	UF 10V B	C3049	CS0UB0413K	CC	0.001	UF 50V B
C2904	CS0UB0N15K	CC	0.1	UF 10V B	C3050	E71GMM151D	CE	150	UF 2V
C2905	CS0UB0N15K	CC	0.1	UF 10V B	C3051	CS0RB0N17K	CC	10	UF 10V B
C2906	CS0UB0N15K	CC	0.1	UF 10V B	C3601	CS0UB0N15K	CC	0.1	UF 10V B
C2907	CS0UB0N15K	CC	0.1	UF 10V B	C3603	CS0UB0N15K	CC	0.1	UF 10V B
C2908	CS0UB0N15K	CC	0.1	UF 10V B	C3607	CS0UB0214K	CC	0.01	UF 16V B
C2909	CS0UB0N15K	CC	0.1	UF 10V B	C3608	CS0UB04H3K	CC	0.0022	UF 50V B
C2911	CS0RB0N17K	CC	10	UF 10V B	C3609	CS0UB0N15K	CC	0.1	UF 10V B
C2912	CS0UB0N15K	CC	0.1	UF 10V B	C3610	CS0PB0PQ6K	CC	4.7	UF 6.3V B
C2913	CS0UB0N15K	CC	0.1	UF 10V B	C3613	CS0UB03H4K	CC	0.022	UF 25V B
C2914	CS0UB0N15K	CC	0.1	UF 10V B	C4230	CS0UB0N15K	CC	0.1	UF 10V B
C2915	CS0UB0N15K	CC	0.1	UF 10V B	C4236	CS0UB0N16K	CC	1	UF 10V B
C2916	CS0UB0N15K	CC	0.1	UF 10V B	C4240	CS0UB0N15K	CC	0.1	UF 10V B
C2917	CS0RB0N17K	CC	10	UF 10V B	C4247	CS0UCH412J	CC	100	PF 50V CH
C2918	CS0UB0N15K	CC	0.1	UF 10V B	C5803	CS0UB0413K	CC	0.001	UF 50V B
C2919	CS0UB0N15K	CC	0.1	UF 10V B	C5804	E61UM0221D	CE	220	UF 6.3V
C2925	CS0RB0N17K	CC	10	UF 10V B	C5808	CS0UB0N15K	CC	0.1	UF 10V B
C2926	CS0RB0N17K	CC	10	UF 10V B	C5809	CS0PB0415K	CC	0.1	UF 50V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
CAPACITORS				DIODES			
C5811	CS0UCH4Q1J	CC	47 PF 50V CH	D526	DE7RB2202B	DIODE ZENER	UDZSNP22B TE-17
C5814	CS0UCH4Q1J	CC	47 PF 50V CH	△ D527	D97U03301B	DIODE,ZENER	MTZJ33B T-77
C5815	CS0UB0N15K	CC	0.1 UF 10V B	△ D528	D97U03301B	DIODE,ZENER	MTZJ33B T-77
C5818	CS0UB0N15K	CC	0.1 UF 10V B	D3001	D4CRSK34A0	DIODE SCHOTTKY	SK34A
C5819	CS0UB0N15K	CC	0.1 UF 10V B	D3002	D4CRSK34A0	DIODE SCHOTTKY	SK34A
C5827	CS0UB0214K	CC	0.01 UF 16V B	D3003	D4CRSK34A0	DIODE SCHOTTKY	SK34A
C5828	CS0UB0214K	CC	0.01 UF 16V B	D3004	D4CRSK34A0	DIODE SCHOTTKY	SK34A
C5829	CS0UB0N15K	CC	0.33 UF 10V B	D3006	D4CRSK34A0	DIODE SCHOTTKY	SK34A
C5830	CS0UB0P16K	CC	1 UF 6.3V B	D3403	DGERMA1110	DIODE SILICON	MA111-(TX)
C5831	CS0UCH4S1J	CC	56 PF 50V CH	D3604	D61R0V8001	DIODE VARISTA	EZJZ0V80010
C5832	CS0UB0N15K	CC	0.1 UF 10V B	D3605	D61R0V8001	DIODE VARISTA	EZJZ0V80010
C5833	CS0UB0N15K	CC	0.1 UF 10V B	D3607	DDLRS160T0	DIODE SCHOTTKY BARRIER	SS160-T
C5834	CS0UB0N15K	CC	0.1 UF 10V B	D3610	DGJRT54WS0	DIODE SCHOTTKY BARRIER	BAT54WS
C5835	CS0UCH411J	CC	10 PF 50V CH	D6204	DGJRT54WS0	DIODE SCHOTTKY BARRIER	BAT54WS
C5836	CS0UCH4L1J	CC	33 PF 50V CH	D6206	DGERMA1110	DIODE SILICON	MA111-(TX)
C6201	CS0UB0215K	CC	0.1 UF 16V B	D7003	DE7RB9R12B	DIODE ZENER	UDZSNP9.1B TE-17
C6202	CS0UB0215K	CC	0.1 UF 16V B	D7004	DGERMA1110	DIODE SILICON	MA111-(TX)
C6210	CS0UB0214K	CC	0.01 UF 16V B	D7012	D1VT001330	DIODE,SILICON	1SS133T-77
C6213	CS0PB0N16K	CC	1 UF 10V B	D7013	DGERMA1110	DIODE SILICON	MA111-(TX)
C6501	CS0PB0N16K	CC	1 UF 10V B	D7014	DGERMA1110	DIODE SILICON	MA111-(TX)
C6503	CS0PB0N16K	CC	1 UF 10V B	D7017	DGERMA1110	DIODE SILICON	MA111-(TX)
C6505	E61UM2101D	CE	100 UF 16V	D7018	DGERMA1110	DIODE SILICON	MA111-(TX)
C6510	CS0PB0N16K	CC	1 UF 10V B	D7024	DGERMA1110	DIODE SILICON	MA111-(TX)
C6514	CS0PB0N16K	CC	1 UF 10V B	D7601	0021E9Q010	LED	LTL-1BEFJ-002A
C6516	CS0PB0N16K	CC	1 UF 10V B	ICS			
C6518	CS0PB0N16K	CC	1 UF 10V B	△ IC301	I03SP20520	SOUND AMP 5W 2CH	LA42052-E
C7001	CS0PB0315K	CC	0.1 UF 25V B	△ IC501	ICAL055710	POWER IC CONTROL	FA5571N-D1-TE1
C7002	CS0PB04Q3K	CC	0.0047UF 50V B	△ IC502	I1KJ9A431A	VARIABLE SHUNT REGULATOR TAPE	KIA431A-AT
C7003	CS0PB02U4K	CC	0.068 UF 16V B	△ IC503	I03F9797M0	CHARGE PUMP CONTROL	LA5797M-TE-L-E
C7004	CS0PB0413K	CC	0.001 UF 50V B	△ IC505	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
C7007	CS0PB04Q3K	CC	0.0047UF 50V B	IC2801	I56M069550	SCALER	R8J66955BG
C7008	CS0PB0NQ5K	CC	0.47 UF 10V B	IC2802	IGXM05162E	DDR2-800 512M CL=5	H5PS5162FFR-S5C
C7009	CS0PB0315K	CC	0.1 UF 25V B	IC2803	S37I05TE01	MEMORY DATA EEPROM 256K 12C	AT24C256BN-10SU-1.8
C7010	CS0PB0415K	CC	0.1 UF 50V B	IC2804	-----	MEMORY DATA FLASH 32M SPI 8PIN	AT25DF321-SU
C7011	CS0PB0316K	CC	1 UF 25V B	IC2806	ICRJ0256B0	EEPROM 256K 12C	AT24C256BN-10SU-1.8 or
C7012	CS0PCH4H2J	CC	220 PF 50V CH		ICRJ0256N0	EEPROM 256K SOIC	AT24C256N-10SU-2.7
C7017	COJTB05H3K	CC	0.0022UF 500V B	IC3004	I5HJ950UC0	REGULATOR VO=5.0V IO=800MA	S-1170B50UC-OUJTFG
C7018	COJTB05H3K	CC	0.0022UF 500V B	△ IC3006	I07F993230	DC-DC CONVERTER 3.0A	BD9323EFJ
C7020	CS0PB0414K	CC	0.01 UF 50V B	△ IC3007	I07F993230	DC-DC CONVERTER 3.0A	BD9323EFJ
C7022	CS0SB0317K	CC	10 UF 25V B	△ IC3008	IGRF0704U0	2A DROPOUT LINEAR REGULATOR	UP7704U8
C7026	CS0SB0317K	CC	10 UF 25V B	IC3601	S37I05TE02	MEMORY DATA EEPROM 2K 12C	S-24CS02AFJ-TB-GE
C7030	C234SLBB1J	CC	12 PF 6KV SL	IC6201	I9UF032290	RESET IC 2.9V TYPE	PST3229NR
C7031	CS0PB0414K	CC	0.01 UF 50V B	IC6501	I55J040520	DUAL 4CH ANALOG MULTIPLEXER	TC74LVX4052FT
C7032	CS0PB0414K	CC	0.01 UF 50V B	IC7001	I07F098930	INVERTER CONTROL IC	BD9893F-E2
C7033	C234SLBB1J	CC	12 PF 6KV SL	TRANSISTORS			
C7602	E70QU0101M	CE	100 UF 6.3V	△ Q501	TJA0N50FS0	FET	KHB9D0N50F2-U/P
C8102	CS0PCH412J	CC	100 PF 50V CH	Q503	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
C8103	CS0PCH412J	CC	100 PF 50V CH	Q504	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
C8104	CS0PCH4Q2J	CC	470 PF 50V CH	Q505	TAAA1504SY	TRANSISTOR SILICON	KT1504S_Y_RTK
C8105	CS0PCH412J	CC	100 PF 50V CH	Q3001	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
C8106	CS0PCH4Q2J	CC	470 PF 50V CH	Q3002	TPAAA05001	COMPOUND TRANSISTOR	KRA101SRTK
C8107	CS0PCH4Q2J	CC	470 PF 50V CH	Q3003	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
C8108	CS0PCH4Q2J	CC	470 PF 50V CH	Q3004	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8109	CS0PCH412J	CC	100 PF 50V CH	Q3005	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
C8110	CS0PCH412J	CC	100 PF 50V CH	Q3008	TK9A3443B0	FET	SI3443BDV-T1-E3
C8111	CS0PCH4Q2J	CC	470 PF 50V CH	Q3407	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
DIODES				Q3604	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D501	DE7RB3302B	DIODE ZENER	UDZSNP33B TE-17	Q3607	T27T035410	FET	2SK3541_T2L
△ D504	D7KE101520	DIODE VARISTA	S10K150E2S5M4	Q3608	T27T035410	FET	2SK3541_T2L
△ D505	D2WXN40050	DIODE SILICON	1N4005-EIC	Q3612	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D506	D28R11FS20	DIODE	EC11FS2-TE12L	Q3613	T27T035410	FET	2SK3541_T2L
△ D507	D4JXRM11C0	DIODE SILICON	ZRM11C	Q4204	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
△ D508	D4JXRM11C0	DIODE SILICON	ZRM11C	Q4307	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
D509	DE7RB3302B	DIODE ZENER	UDZSNP33B TE-17	Q6502	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
△ D510	D4JXRM11C0	DIODE SILICON	ZRM11C	Q6504	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
△ D511	D4AT01H6E0	DIODE RECTIFIER	1H6-E	Q7001	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D512	D2BXARS010	DIODE SILICON	SARS01-V1	Q7002	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
△ D514	D2WXRU2AM0	DIODE SILICON	RU2AM-EIC	△ Q7004	TS3M000040	COMPOUND TRANSISTOR	FW256-TL-E
△ D515	D28F31DQ10	DIODE SCHOTTKY	31DQ10-FC	COILS & TRANSFORMERS			
△ D516	D4AT01H3E0	DIODE RECTIFIER	1H3-E	△ L502	029X000420	COIL,LINE FILTER	SS11VL-R10093
D517	D97U01201B	DIODE,ZENER	MTZJ12B T-77	L503	02167E220K	COIL	22 UH
△ D518	D4JXRM11C0	DIODE SILICON	ZRM11C	L504	02167E100K	COIL	10 UH
D519	DGERMA1110	DIODE SILICON	MA111-(TX)	L3002	021UMK100P	COIL	10 UH
D520	DGERMA1110	DIODE SILICON	MA111-(TX)	L3003	021UMK100P	COIL	10 UH
D521	DGERMA1110	DIODE SILICON	MA111-(TX)	L3008	021UMK100P	COIL	10 UH
D522	DGERMA1110	DIODE SILICON	MA111-(TX)	L3602	02D1000119	COIL CHOKE	EXC28CG900U
△ D523	D28A10A450	DIODE SCHOTTKY BARRIER	FCQS10A045				

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
COILS & TRANSFORMERS				MISCELLANEOUS			
L3603	02D1000119	COIL CHOKE	EXC28CG900U	EL2401	124116281A	EYE LET	XRY16X28BD
L5803	021AS9224J	COIL	0.22 UH	EL2402	124120301A	EYE LET	XRY20X30BD
L5804	0216SD220J	COIL	22 UH	△ F501	081PC04005	FUSE	51MS040L
△ T501	0481280258	TRANSFORMER,SWITCHING	81280258	△ F7001	0835C04003	MICRO FUSE	20N_4000FS
△ T7001	048137001R	TRANSFORMER,SWITCHING	8137001R	FH501	067A0T0011	HOLDER,FUSE	CNT47-0003A or
JACKS					06710T0009	HOLDER,FUSE	EYF-52BCY
△ J301	060R131024	HEADPHONE JACK	PJ-364H	FH502	067A0T0011	HOLDER,FUSE	CNT47-0003A or
△ J501	064Q1A0010	JACK,AC	CCT2302-0901C		06710T0009	HOLDER,FUSE	EYF-52BCY
J4206	060R401140	RCA JACK	RCA-101HT(OR)	NR2801	11074330M7	R,NETWORK	CRA108330JV
J4302	060R131024	HEADPHONE JACK	PJ-364H	NR2802	11074330M7	R,NETWORK	CRA108330JV
J8101	062R750007	PLUG	DIN-417HA-01	NR2803	11074330M7	R,NETWORK	CRA108330JV
J8102	060R411058	RCA JACK	RCA-341H(NI)-09	NR2804	11074220M7	R,NETWORK	CRA108220JV
J8103	060R431039	RCA JACK	RCA-228H(3)NI-02	NR2805	11074220M7	R,NETWORK	CRA108220JV
J8104	060R431040	RCA JACK	RCA-341H(2)NI-06	NR2814	11074330M7	R,NETWORK	CRA108330JV
SWITCHES				NR2815	11074330M7	R,NETWORK	CRA108330JV
SW2202	0504101T34	SWITCH,TACT	EVQ21505R	NR3601	11074473M7	R,NETWORK	CRA108473JV
SW2203	0504101T34	SWITCH,TACT	EVQ21505R	NR3602	11074473M7	R,NETWORK	CRA108473JV
SW2204	0504101T34	SWITCH,TACT	EVQ21505R	NR3605	11074473M7	R,NETWORK	CRA108473JV
SW2205	0504101T34	SWITCH,TACT	EVQ21505R	NR3606	11074473M7	R,NETWORK	CRA108473JV
SW2206	0504101T34	SWITCH,TACT	EVQ21505R	NR6501	11074223M7	R,NETWORK	CRA108223JV
SW2207	0504101T34	SWITCH,TACT	EVQ21505R	NR6502	11074223M7	R,NETWORK	CRA108223JV
SW2208	0504101T34	SWITCH,TACT	EVQ21505R	NR6503	11074223M7	R,NETWORK	CRA108223JV
P.C.BOARD ASSEMBLIES				NR6504	11074223M7	R,NETWORK	CRA108223JV
PCB240	A37I05T240	POWER PCB ASS'Y	CEH434A	OS7601	077Q038009	REMOTE RECEIVER	KSM-2003TCW2P
PCB270	A37I05T270	OPERATION PCB ASS'Y	CEH438A	△ SP301	070Y433004	SPEAKER	S0308F01
PCBDA0	A37I05TDA0	REMOCON PCB ASS'Y	CEH439A	△ SP302	070Y433004	SPEAKER	S0308F01
PCBDH0	A37I05TDH0	DIGITAL PCB ASS'Y	CEH432A	△ TH501	DSQDNE5R0L	THERMISTOR	5D2-08LCS
MISCELLANEOUS				TM101	076E0PV031	TRANSMITTER	CRB700
B304	024HC13914	CORE,BEADS	HCB3216KF-391T20	△ TU5801	0164100027	DIGITAL TUNER	ENG36E18KRF
B305	024HC13914	CORE,BEADS	HCB3216KF-391T20	△ V2801	09EL118502	LCD	M185B1-P01-CL01
B307	024HC13914	CORE,BEADS	HCB3216KF-391T20	X2801	100GT02509	CRYSTAL	SMD-49 C25000H025
B308	024HC13914	CORE,BEADS	HCB3216KF-391T20				
B501	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0	RESISTOR			
B2801	024HC52213	CORE,BEADS	FCM1608KF-221T06	RC..... CARBON RESISTOR			
B2802	024HC52216	CORE,BEADS	HCB1608KF-221T20				
B2803	024HC52216	CORE,BEADS	HCB1608KF-221T20	CAPACITORS			
B2805	024HC51816	CORE,BEADS	HCB1608KF-181T20	CC..... CERAMIC CAPACITOR			
B2807	024HC52216	CORE,BEADS	HCB1608KF-221T20	CE..... ALUMI ELECTROLYTIC CAPACITOR			
B2809	024HC52216	CORE,BEADS	HCB1608KF-221T20	CP..... POLYESTER CAPACITOR			
B2810	024HC52216	CORE,BEADS	HCB1608KF-221T20	CPP..... POLYPROPYLENE CAPACITOR			
B2811	024BC5121J	CORE,BEADS	BLM18PG121SN1D	CPL..... PLASTIC CAPACITOR			
B2812	024BC5121J	CORE,BEADS	BLM18PG121SN1D	CMP..... METAL POLYESTER CAPACITOR			
B2813	024BC5121J	CORE,BEADS	BLM18PG121SN1D	CMPL..... METAL PLASTIC CAPACITOR			
B2814	024BC5121J	CORE,BEADS	BLM18PG121SN1D	CMPP..... METAL POLYPROPYLENE CAPACITOR			
B2817	024BC5121J	CORE,BEADS	BLM18PG121SN1D				
B2818	024BC5121J	CORE,BEADS	BLM18PG121SN1D				
B3016	024HC51816	CORE,BEADS	HCB1608KF-181T20				
B3601	024HC51816	CORE,BEADS	HCB1608KF-181T20				
B4215	024HC56005	CORE,BEADS	FCM1608CF-600T06				
B5803	024HC51023	CORE,BEADS	FCM1608KF-102T02				
B5804	024HC51023	CORE,BEADS	FCM1608KF-102T02				
B5805	024BC5121J	CORE,BEADS	BLM18PG121SN1D				
B6201	024HC51023	CORE,BEADS	FCM1608KF-102T02				
B6202	024HC51023	CORE,BEADS	FCM1608KF-102T02				
B6203	024HC51023	CORE,BEADS	FCM1608KF-102T02				
B6503	024HC52213	CORE,BEADS	FCM1608KF-221T06				
BT001	141L004019	BATTERY,MANGAN	R03 (AB) 2P TG AO DB				
BT002	141L004019	BATTERY,MANGAN	R03 (AB) 2P TG AO DB				
CD301	06CU143401	CORD CONNECTOR	CU143401				
△ CD501	120Q119905	CORD SET AC	P201-2476-2				
CP501	06977NM020	CONNECTOR PCB SIDE	127301123K2				
CD2801	06EA2U2510	CORD CONNECTOR	EA2U2510				
CD6202	06CU231502	CORD CONNECTOR	CU231502				
CD7602	06CU250802	CORD CONNECTOR	CU250802				
CP2201	069S230639	CONNECTOR PCB SIDE	A2001WR2-3P				
CP2801	06GG270029	CONNECTOR PCB SIDE	A2001WV-7A				
CP2802	06GG2B0029	CONNECTOR PCB SIDE	A2001WV-11A				
CP2803	06G5AA1002	CONNECTOR PCB SIDE	USB-A1D102F-4B4N				
CP2804	069S2U0739	CONNECTOR PCB SIDE	A2006WV0-2X15P				
CP3001	06CK7N0301	CORD CONNECTOR	TWG-P23P-A1				
CP3601	06GDYL3038	CONNECTOR PCB SIDE	1A0300030				
CP4203	06G7S21501	CONNECTOR PCB SIDE	WD-00021-R				
CP4301	06CK7N0301	CORD CONNECTOR	TWG-P23P-A1				
CP7001	069SJ20019	CONNECTOR PCB SIDE	C3502WR0-2P-HK				
CP7002	069SJ20019	CONNECTOR PCB SIDE	C3502WR0-2P-HK				
CP7601	069S250629	CONNECTOR PCB SIDE	A2001WV2-5P				
CP8101	06977NM020	CONNECTOR PCB SIDE	127301123K2				

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